

## VPA PERMIT PROGRAM FACT SHEET

This document gives pertinent information concerning the reissuance of the VPA permit listed below. This permit is being processed as a **delegated Industrial** facility. Chesapeake Custom Chemical Corporation manufactures biodiesel fuel and a glycerol/methanol mixture.

1. **Name and Address:**

Facility Name and Address:

***Chesapeake Custom Chemical Corporation***  
126 Reservoir Road  
Ridgeway, VA 24148

Legal Name of Owner and Address:

***Chesapeake Custom Chemical Corporation***  
PO Box 615  
Ridgeway, VA 24148

**Permit No. VPA02001**

Current Permit Expiration Date: December 22, 2008

2. **Location of Pollution Management Activity (if different from above):** NA

County: Henry

SIC Code: 2891

3. **Facility Contact:**

Name: J. Allen French

Title: President

Telephone No.: (276) 956-3145

4. **Permit Drafted By:**

Becky L. France, Environmental Engineer Senior

Date: October 9, 2008

DEQ Regional Office:

West Central Regional Office

Site Inspection Performed By:

Becky L. France

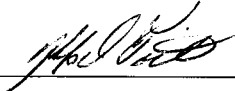
Date: June 13, 2008

Application Checklist Completed By: Becky L. France

Date: June 25, 2008

Reviewed By: Kip D. Foster, Water Permit Manager

Reviewer's Signature: \_\_\_\_\_



Date: \_\_\_\_\_

10-14-08

Public Comment Period Dates: From 10/23/08 To 11/21/08

5. **Permit Characterization:**

Permit Action	Facility	Permit Type
<input type="checkbox"/> Issuance	<input checked="" type="checkbox"/> Existing facility	<input type="checkbox"/> Biosolids distribution, marketing, storage, and land application
<input checked="" type="checkbox"/> Reissuance	<input type="checkbox"/> Proposed facility	<input type="checkbox"/> Frequent
<input type="checkbox"/> Revocation and reissuance	<input type="checkbox"/> Municipal	<input type="checkbox"/> Infrequent
<input type="checkbox"/> Owner modification	<input type="checkbox"/> POTW	<input type="checkbox"/> Land application/storage of animal waste
<input type="checkbox"/> Board initiated modification	<input type="checkbox"/> PVOTW	<input type="checkbox"/> Land application of wastewater
<input type="checkbox"/> Interim authorization	<input type="checkbox"/> Private	<input type="checkbox"/> Industrial
<input type="checkbox"/> Enforcement action	<input type="checkbox"/> Federal	<input type="checkbox"/> Municipal
<input type="checkbox"/> Change of name/ownership	<input type="checkbox"/> State	<input type="checkbox"/> Land application of industrial sludge
	<input checked="" type="checkbox"/> Industrial	<input type="checkbox"/> Land application of water plant residuals
	<input checked="" type="checkbox"/> Privately owned	<input type="checkbox"/> Land application of septage
	<input type="checkbox"/> Publicly owned	<input type="checkbox"/> Water reclamation and reuse
	<input type="checkbox"/> Animal feeding operation/poultry waste management	<input checked="" type="checkbox"/> Pump and haul
		<input type="checkbox"/> Other: _____
		<input type="checkbox"/> Other: _____

6. **Statutory or Regulatory Basis for Special Conditions and Monitoring Requirements:**

- (X) State Water Control Law
- (X) 9 VAC 25-32-10-et seq.
- (X) Water Quality Standards (Surface and Ground Water Monitoring)
- (X) Agency Guidance Memoranda Nos. 98-2010, 96-004
- (X) Additional (explain) VPA Permit Manual

7. **Application Information:**

Application Submitted By: J. Allen French  
Title: President  
Address: Chesapeake Custom Chemical Corporation  
P.O. Box 615  
Ridgeway, VA 24148

Application Receipt Date: 06/25/08

	<u>Requested</u>	<u>Received</u>
Additional Information:	NA	NA

Application Complete Date: 06/25/08

8. **Pollution Management Activity Description:**

Chesapeake Custom Chemical Corporation manufactures biodiesel fuel and a glycerol/water mixture. This corporation began operation in 1995 after purchase of the formaldehyde resin manufacturing plant from Trinity Chemical formerly operating as Southeastern Adhesives Company. Three ground water monitoring wells are located on the site. The facility does not use a water wash step, so there is no process wastewater generated. The permittee has long range plans to make a formaldehyde resin used for sealing sewer pipes, a ketone aldehyde resin used waterproofing cardboard, and a dicyanidiamide polymer for water treatment.

Biodiesel and a glycerol water mixture are produced in two 10,000 gallon stainless steel reactors. Noncontact cooling water is circulated between the cooling towers and the reactors. Recovered methanol is recycled in the process. Animal fat, methanol, and sodium methylate (catalyst) undergo reactions to form fatty acid esters in a methanol mixture and a glycerol methanol mixture. This mixture contains about 30 percent methanol. These two products are allowed to gravity separate in the reactor. They each contain excess methanol. Methanol is recovered from each product independently. Recovered methanol is recycled back into the process, and separated solid impurities are hauled to a landfill.

The bottom reactor layer containing the glycerin methanol mixture is pumped to one of two 20,000 gallon intermediate storage tanks and is later pumped back into the reactor for methanol recovery.

The top reactor layer contains a mixture of methyl esters and methanol. The methanol is separated from the methyl esters with heat under vacuum and recovered through condensation for reuse in the process. Water for the condenser circulates in a closed loop system to the cooling tower. This recovered methanol is stored in an outdoor 6,000 gallon

tank. After methanol has been removed from the methyl ester phase the product is cooled, and a small amount of methanol free glycerol forms on the bottom of the reactor. This glycerol is transferred to totes. Further glycerol separation from methyl esters is achieved by allowing additional time for separation in the totes. Impurities in the methyl esters are removed by addition of magnesium silicate (Magnesol). The resulting nonhazardous material is removed via a filter press, and the filter cake collected and hauled to a landfill. The separated methyl esters product from the filter press is pumped to one of two bulk storage tanks from which it is loaded onto bulk tankers as finished product.

Crude glycerin mixed with methyl ester is stored in totes outside on a concrete pad. Storm water from this pad drains into a common ditch and then into a three chambered concrete basin. The first two cells have a total capacity of 104,000 gallons. An overflow in the cell wall allows overflow into the second cell which has a pontoon aerator and internal circulation. An emergency overflow allows for transfer to the third aerated chamber. The total capacity of the chambers is 367,000 gallons.

After approximately seven batches of methyl ester have been processed, accumulated glycerol methanol mixture is pumped from one of two storage tanks into the reactor. The methanol is separated from the glycerol with heat and vacuum and is recovered through condensation for reuse in the process. The glycerol is then cooled, diluted with twenty percent water, and neutralized. The crude glycerol water mixture is pumped to two bulk storage tanks from which it is loaded onto bulk tankers as finished product.

See **Attachment A** for facility flow diagram and site plan.

See **Attachment B** for site inspection report.

9. **Location Description:** The facility is located on 126 Reservoir Road in Ridgeway, Virginia. See **Attachment C** for a copy of the USGS Topographic Map which indicates the location of the Pollution Management Activity and significant dischargers (potential and actual).

Name of Topo: Price

10. **Changes to the permit from the previous reissuance:**

A. **The following special condition has been deleted from the permit:**

The requirement to conduct daily inspections of the facility (Part I.B.6) has been deleted because the permittee does not currently discharge process water into the containment basin. Inspections of this basin may be addressed in the Operations and Maintenance Manual as needed.

**B. Special conditions that have been modified from the previous permit are listed below: (The referenced permit sections are for the new permit.)**

1. The Pump and Haul Agreement Special Condition (Part I.B.4) has been revised to require submission of an agreement if needed.
2. The Operations and Maintenance Manual Special Condition (Part I.B.5) has been revised in accordance with the VPA Permit Manual.
3. The Ground Water Monitoring Plan Special Condition (Part I.B.7) has been revised to cite the revised ground water monitoring plan.

**C. A new special condition added to the permit is listed below:**

Quarterly pump and haul activity reporting (Part I.B.5) has been added in accordance with the VPA Permit Manual. This reporting will not be applicable unless the permittee begins pumping and hauling process wastewater.

**D. Permit Limits and Monitoring Requirements:** See Table II on page 11 for details on changes to ground water monitoring requirements.

11. **Basis for Monitoring Requirements:** See Table I on page 10 for the source, rationale, or guidance used to specify the monitoring frequency, sample type, and any other limitations that may be imposed on any parameter. Specific ground water parameters are discussed below.

**Attachment D** contains a summary of ground water monitoring data collected for pH, static elevation, ammonia-N, nitrate-N, COD, formaldehyde, arsenic, and di-n-butyl phthalate from January 1991 to July 2008. In 1987, a ground water monitoring program was approved for the installation of upgradient and downgradient monitoring wells. On March 17, 2006, revisions to this monitoring plan were approved. This revision involved the removal of a drinking water well from the monitoring network because it went dry. The locations of the one upgradient well and two downgradient wells are found in **Attachment D**.

The upgradient well monitoring data indicate no significant contamination from the parameters monitored except for some low levels of ammonia-N and nitrate. Beginning in 1991, high COD, formaldehyde, and ammonia N were found in downgradient well MW-2. Pollutant levels were significantly lower at MW-3 and not elevated at the drinking water well (MW-4). Pollutant concentrations have declined since 1991. Ground water contamination (COD, formaldehyde, ammonia-N, nitrate-N) of downgradient ground water was originally linked to process chemicals at the previously owned facility. In 1989 soil samples from drum storage area were found to be contaminated with ammonia-N, nitrate-N, and formaldehyde,

and soil samples from the urea dump area were contaminated with ammonia-N. Since 1989, contaminated soil has been removed, a retaining wall around product tank storage area repaired, a concrete pad added to the front of the waste treatment area, a concrete pad added to the formaldehyde unloading area, and a concrete pad added to the urea dump area. A daily spill prevention and inspection program was also begun around 1989. In 1992 a leak in the third chamber was detected and repaired. The decline in concentration of ground water contamination may be due to natural attenuation as well as effective site best management practices.

Continued ground water monitoring is necessary to determine if the pollution management activities are adversely affecting the ground water quality and if the Board's ground water standards are being violated. This continued ground water monitoring is also necessary to track the plume of ammonia detected in MW-2 and ensure that contaminated ground water does not leave the property. A reduction in monitoring frequency has been considered because the facility's manufacturing process does not produce and store process water.

**Ammonia-N** - Ammonia-N in MW-2 has consistently exceeded the ammonia standard of 0.025 mg/L. In 2008, the ammonia concentration ranged from 1.8 mg/L to 5.6 mg/L. Current monitoring data from MW-2 indicates continued ground water contamination with ammonia. MW-3 exceeded the ground water standard for ammonia for two of the three data points in 2008. Due to continued exceedances of the ground water standard, monitoring is needed. The monitoring frequency is being reduced to annual because the facility activities are not expected to contribute to an increase in ammonia in the ground water given proper management of chemical mixtures stored on site.

**COD** - COD, ranging from <25 mg/L to 49.7 mg/L, was detected in MW-2. There was one COD value detectable for MW-3; however, the corresponding upgradient well had a detectable COD value greater than downgradient wells. There does not seem to be a significant increase in the COD values for MW-3 over the background levels detected in upgradient wells. Also, there are no ground water standards associated with this parameter. Therefore, COD monitoring will no longer be required for the ground water wells.

**Nitrate-N** - The ground water standard for nitrate is 5 mg/L. In 2008, there was one exceedance of the nitrate standard for MW-2 and one exceedance for MW-3. Due to continued exceedances of the ground water standard, monitoring is needed. The monitoring frequency is being reduced to annual because the facility activities are not expected to contribute to an increase in ammonia in the ground water given proper management of chemical mixtures stored on site.

**pH** - In 2008, upgradient pH data ranged from 5.64 to 6.9 S.U. For MW-3, one of the pH values (5.15 S.U.) in 2008 was lower than the minimum ground water standard. Spills or leakage of products or raw materials have the potential of affecting the pH of the ground

water. In order to protect the ground water standard of between 5.5 and 8.5 S.U. , pH monitoring will continue but the frequency has been reduced to annual.

**Static Water Level** - This parameter will continue to be monitored in conjunction with other ground water parameters. The frequency has been reduced to annual.

**Total Dissolved Solids** - During 2008 total dissolved solids values were elevated above the ground water standard for MW-2 but not MW-3. While not above the ground water standards, the values for MW-3 were elevated above the upgradient well values. Monitoring for total dissolved solids will continue but the frequency will be reduced to once per year.

12. **Special Conditions:** The following is a list of the special conditions in the proposed reissuance listed in the order in which they appear.

a. **Discharge Exemption (Part I.B.1)**

Rationale: 9 VAC 25-32-30A of the VPA Permit Regulation requires that all pollutant management activities covered under a VPA permit maintain no point source discharge of pollutants to surface waters except in the case of a storm event greater than 25 year, 24 hour storm.

b. **Operation and Maintenance Manual Requirement (Part I.B.2)**

Rationale: 9 VAC 25-32-80D requires proper operation and maintenance of the permitted facility. Compliance with an approved O&M Manual ensures this requirement. An O&M Manual is required by Code of Virginia 62.1-44.19. Section 401 of the Clean Water act requires the permittee to provide an opportunity for the State to review the proposed operations of the facility.

c. **Material Storage and Handling (Part I.B.3)**

Rationale: VAC 25-30-50 prohibits the discharge of any wastes into State waters unless authorized by permit. This condition is required in all industrial permits with materials storage to ensure State waters are protected through proper handling.

d. **Pump and Haul Agreement (Part I.B.4)**

Rationale: In accordance with 9 VAC 25-32-100.4, this requirement ensures that any process wastewater hauled off site is disposed of in an appropriate manner.

e. **Quarterly Pump and Haul Activity Reporting (Part I.B.5)**

Rationale: In the event that the permittee notifies the DEQ of proposed pump and haul activities, quarterly reporting shall begin within three months of notification. This condition requires that the permittee haul process wastewater to an authorized treatment facility. In accordance with 9 VAC 25-32-100.3c(3), reporting of pump and haul activities verifies that this requirement is met. Quarterly reporting shall no longer be required upon nullification of any pump and haul agreement.

f. **Freeboard Requirement (Part I.B.6)**

Rationale: In accordance with 9 VAC 25-32-30A to prevent an unauthorized discharge from the facility, all waste storage facilities shall maintain one foot of freeboard at all times, up to and including a 25-year, 24-hour storm.

g. **Ground Water Monitoring Plan (Part I.B.7)**

Rationale: Since downgradient well MW-3 currently has some exceedances of the ammonia and nitrate ground water standard (9 VAC 25-260-210), continued ground water monitoring is required. In accordance with Guidance Memorandum 98-2010, ground water monitoring will determine whether pollutants are being naturally attenuated.

h. **Annual Project Summary Report (Part I.B.8)**

Rationale: The annual reporting requirement shall include a yearly water balance. Additional information to complete a water balance is being required to provide adequate information to determine if any wastewater may be reaching ground water. This requirement is not applicable unless the facility begins pumping and hauling process wastewater.

i. **Concept Engineering Report Requirement (Part I.B.9)**

Rationale: In order to construct or modify and operate new treatment processes, a Concept Engineering Report must be submitted for approval in accordance with Code of Virginia Section 62.1-44.16.

13. **Compliance Schedules:** NA

14. **Tables associated with this permit are listed below:**

Table 1	Basis for Monitoring Requirements
Table 2	Permit Processing Change Sheet



**Attachments associated with this permit are listed below:**

Attachment A	Facility Flow Diagram and Site Plan
Attachment B	Site Inspection Report
Attachment C	Topographic Map
Attachment D	Ground Water Monitoring Data
Attachment E	Public Notice

15. **Licensed Operator Requirements:** None

16. **Reliability Class:** None

17. **Additional Comments -- Public Notice Information required by 9 VAC 25-31-290 D:**

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting Becky L. France at:

Virginia DEQ, West Central Regional Office  
3019 Peters Creek Road  
Roanoke, VA 24019  
540-562-6700  
blfrance@deq.virginia.gov

Persons may comment in writing or by e-mail to the DEQ on the proposed permit action and may request a public hearing during the comment period. Comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing, and a brief explanation of how the requester's interests would be directly and adversely affected by the proposed permit action.

Following the comment period, the DEQ will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given.

**TABLE I**  
**BASIS FOR MONITORING REQUIREMENTS**

Monitoring Type: Ground Water  
Monitoring Location: Ground Water Monitoring Wells (MW) 1, 2, 3  
(X) Final Limitations: Effective Date to Expiration Date  
( ) Interim Limitations: NA

<u>PARAMETER</u>	<u>UNITS</u>	<u>LIMITATION</u>	<u>FREQUENCY</u>	<u>TYPE</u>	<u>BASIS</u>
Static Water Level	ft/inches	No Limit	1/Year	Measured	PM*
pH	S.U.	No Limit	1/Year	Grab	PM*
Total Dissolved Solids	mg/L	No Limit	1/Year	Grab	PM*
Ammonia-Nitrogen	mg/L	No Limit	1/Year	Grab	PM*
Nitrate-Nitrogen	mg/L	No Limit	1/Year	Grab	PM*

- \* The monitoring requirements are based on the VPA Permit Manual, Guidance Memorandum 98-2010, best professional judgment as described in Section 11 of this Fact Sheet, and the ground water standards.

**Table II**

**PERMIT PROCESSING CHANGE SHEET**

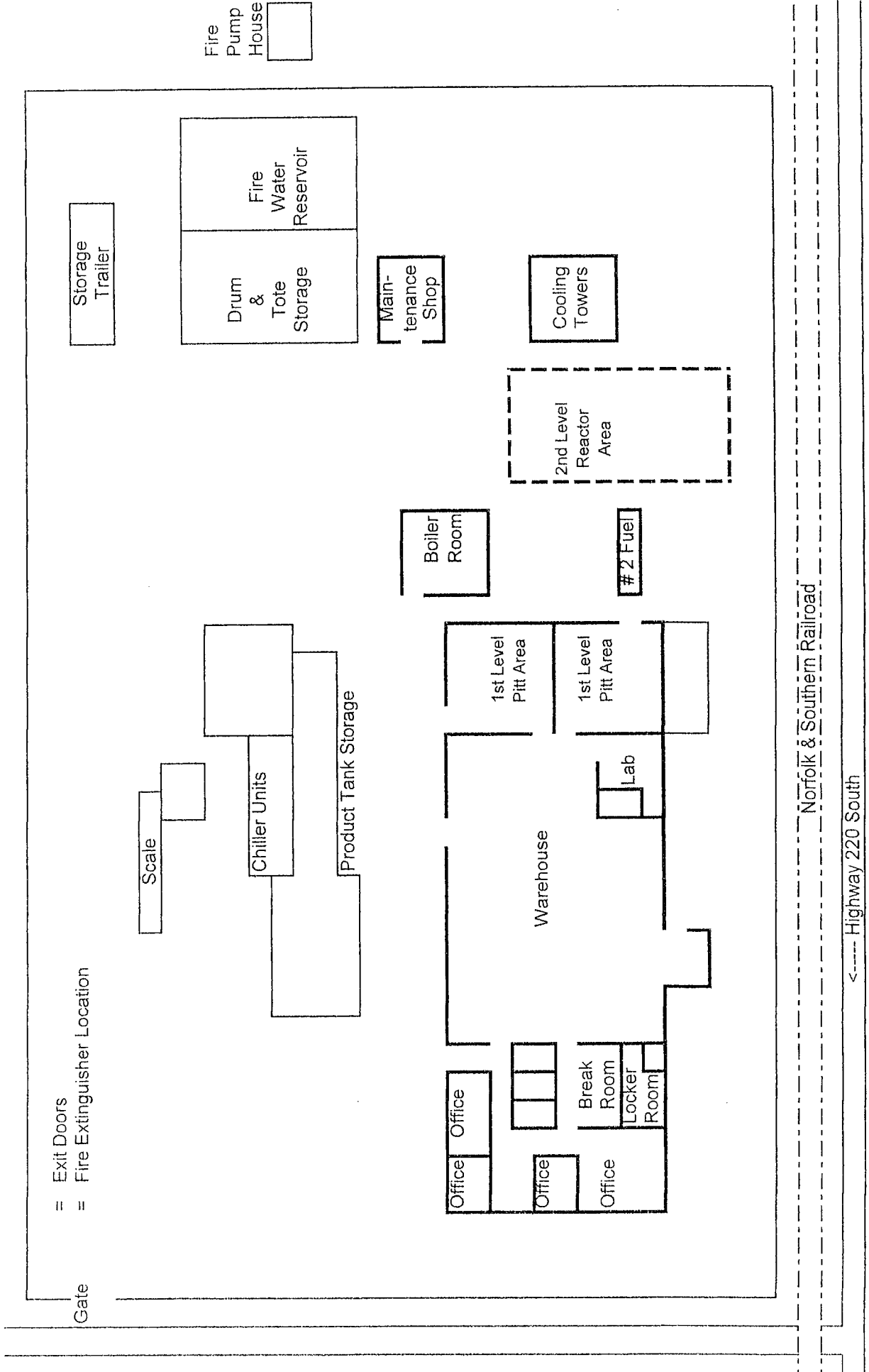
1. Monitoring Location: Ground Water Monitoring Wells MW-1, MW-2, MW-3
2. Monitoring Type: Ground Water
3. Monitoring requirement changes are listed below:

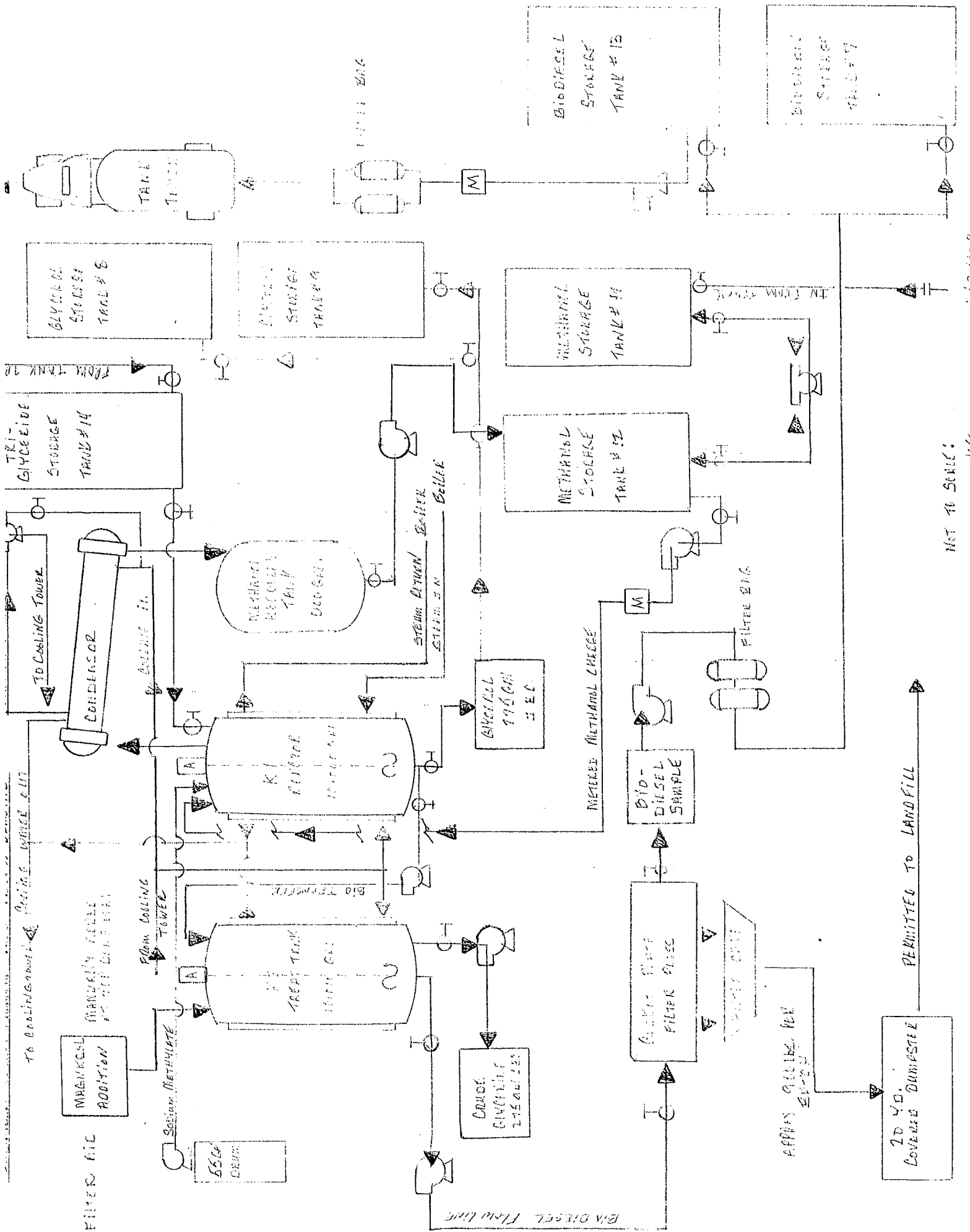
Parameter Changed	Monitoring Requirement Changed		Reason for Change	Date
	From	To		
Static Water Level, pH, ammonia-N, nitrate-N, total dissolved solids	1/Quarter	1/Year	Since the concentration of the chemical parameters appears to be much lower, the monitoring frequency has been reduced to annual.	10/7/08
COD	1/Quarter	NA	The concentration of this parameter does not appear to be elevated, and since ground water criteria do not exist for this parameter, monitoring will no longer be required.	10/7/08

## **Attachment A**

### **Facility Flow Diagram and Site Plan**

# Chesapeake Custom Chemical Evacuation Site Plan





NOT TO SCALE

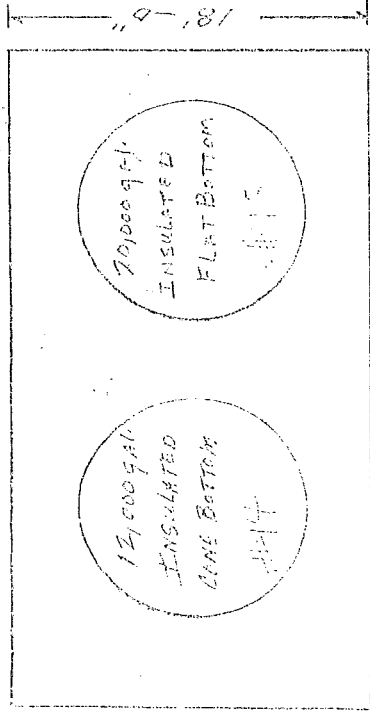
PERMITTED TO LANDFILL

20 YD. COVERED DUMPSTER

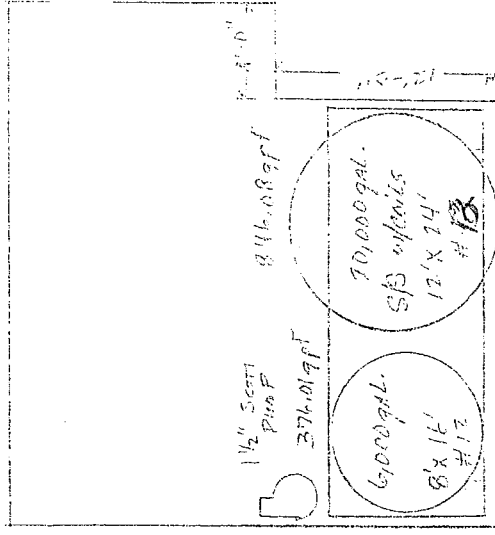
FRONT VIEW

CONTAINMENT #3 BACK SIDE PLT.

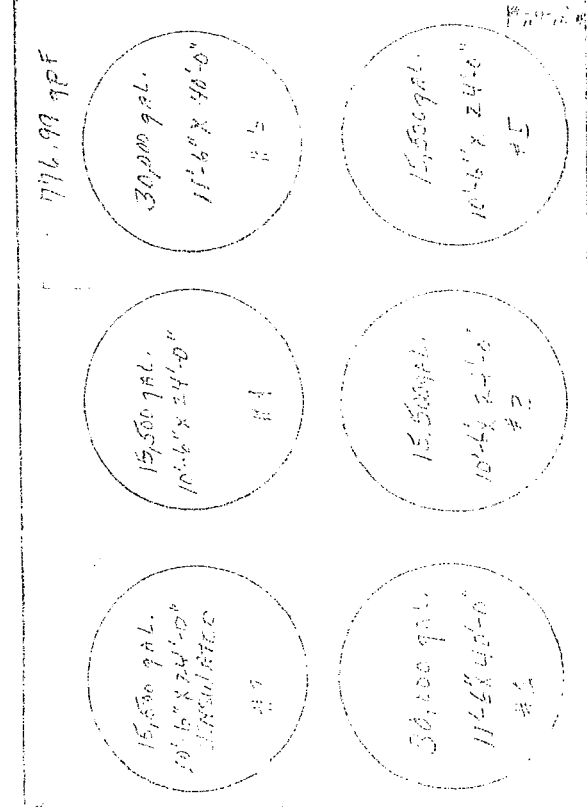
35'-0"



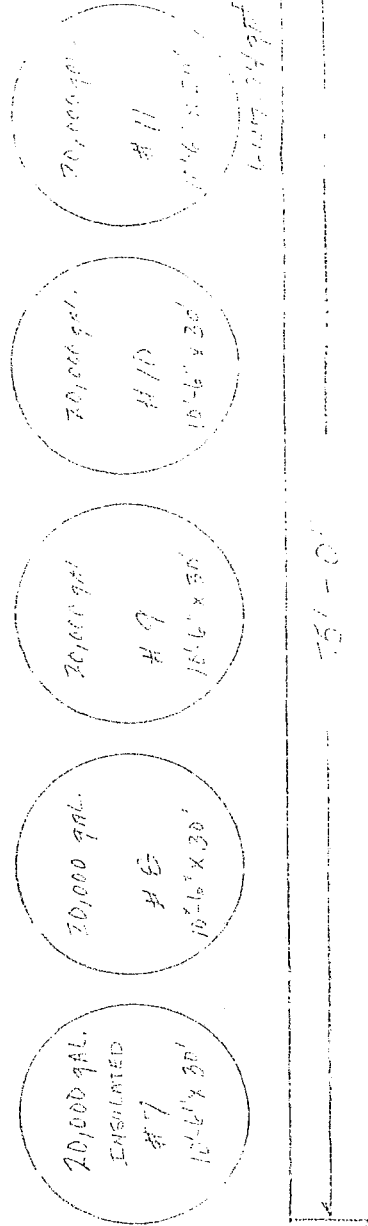
CONTAINMENT #2  
RESIDE SCALE HOUSE



10'-0"



776.99 GPF



35'-0"

CONTAINMENT #4  
FRONT SIDE PLT.

9/26/06

Chesapeake Custom Chemical Storage Tank Key

<u>Tank #</u>	<u>Contents</u>
1	No current use
2	No current use
3	Glycerol / Methanol Storage
4	No current use
5	No current use
6	No current use
7	Biodiesel Storage
8	<del>No current use</del> Glycerol / Methanol Storage
9	Glycerol / Methanol Storage
10	No current use
11	Methanol Storage
12	Methanol Storage (recovered in process - day tank)
13	Biodiesel Storage
14	<del>Soy Oil Storage</del> Liquid Animal Fat Storage
15	Future Formaldehyde Storage



**Attachment B**

**Site Inspection Report**

# MEMORANDUM

## DEPARTMENT OF ENVIRONMENTAL QUALITY *West Central Regional Office*

3019 Peters Creek Road

Roanoke, VA 24019

SUBJECT: Site Inspection Report for Chesapeake Custom Chemical Corporation

TO: Permit File

FROM: Becky L. France, Environmental Engineer *BLF*

CC: Samuel Hale, Environmental Inspector Supervisor

DATE: October 6, 2008 (Revised 10/20/08)

### Introduction

On June 13, 2008, a site visit was conducted at Chesapeake Custom Chemical Corporation in Ridgeway, Virginia. Allen French, President and Mike Calloway, Plant Manager were present at the inspection. Chesapeake Custom Chemical manufactures biodiesel fuel and a glycerol/water mixture. The facility does not use a water wash step, so there is no process wastewater generated. The permittee has long range plans to make a formaldehyde resin used for sealing sewer pipes, a ketone aldehyde resin used waterproofing cardboard, and a dicyanidiamide polymer for water treatment.

The facility is currently staffed for two shifts five days a week and on Saturday every other week. The permittee has a general storm water permit for the industrial storm water that runs off the raw material storage areas. The process does not generate any process water, but raw products and crude intermediate totes are stored on site. Sanitary wastes are handled by an on-site septic tank/drainfield system. The closest surface water to the site is a seasonal spring located approximately 750 feet downgradient from the plant.

Biodiesel fuel may be produced from animal fat or soy bean oil, and the facility is currently using animal fat for the process. There are three containment areas for the bulk storage tanks. Liquid animal fat is stored in an outdoor 12,000 gallon heated storage tank. Methanol is stored in a 20,000 gallon storage tank and a 6,000 gallon storage tank. Sodium methylate solution is stored in a 55 gallon drum in a storage trailer. Magnesium silicate is also stored inside in 50 pound bags.

Biodiesel and a glycerol water mixture are produced in two 10,000 gallon stainless steel reactors. Noncontact cooling water is circulated between the cooling towers and the reactors. Recovered methanol is recycled in the process. Animal fat, methanol, and sodium methylate (catalyst) undergo reactions to form fatty acid esters in a methanol mixture and a glycerol methanol mixture. This mixture contains about 30 percent methanol. These two products are allowed to gravity separate in the reactor.

They each contain excess methanol. Methanol is recovered from each product independently. Recovered methanol is recycled back into the process, and separated solid impurities are hauled to a landfill.

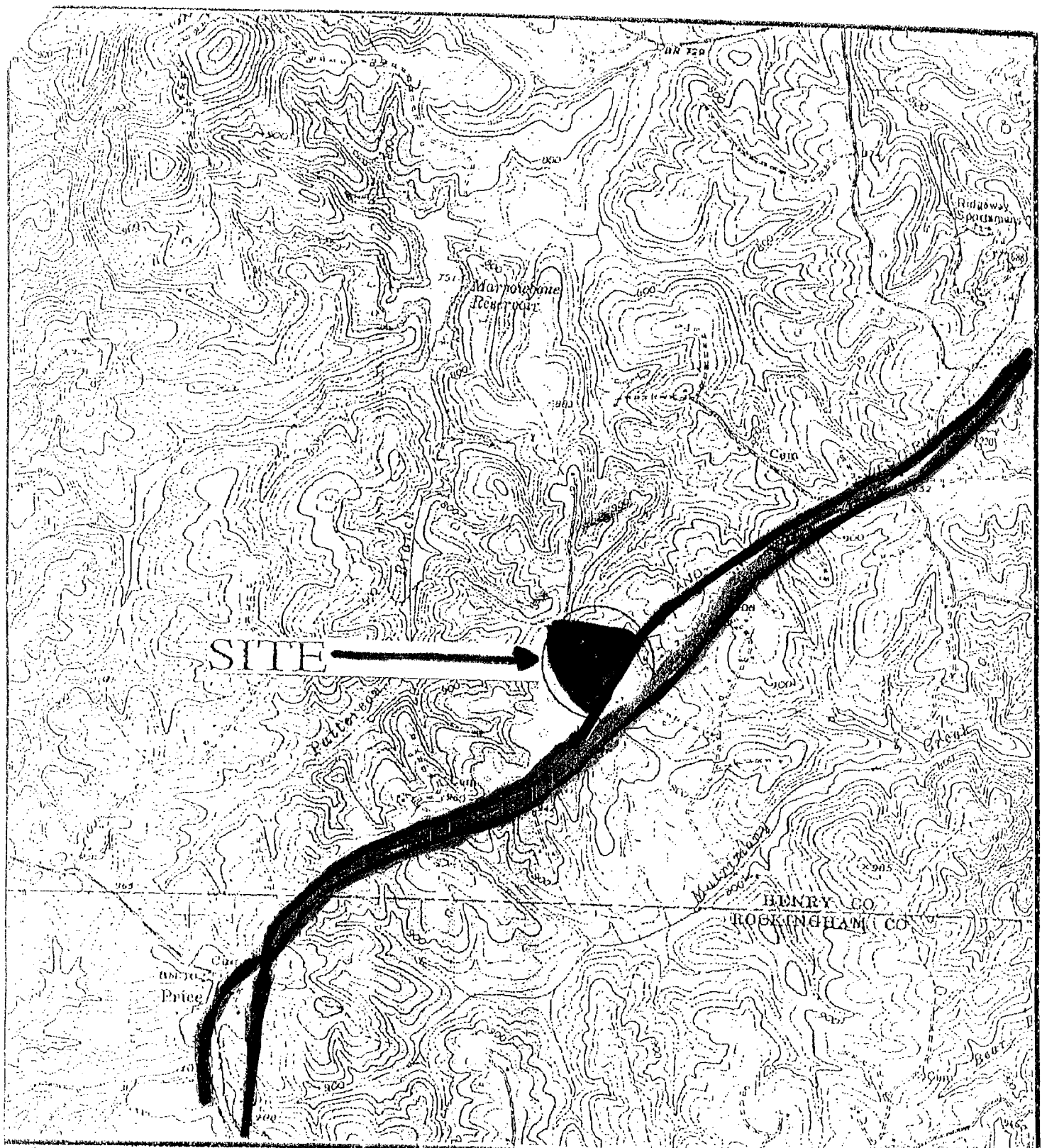
The bottom reactor layer containing the glycerin methanol mixture is pumped to one of two 20,000 gallon intermediate storage tanks and is later pumped back into the reactor for methanol recovery.

The top reactor layer contains a mixture of methyl esters and methanol. The methanol is separated from the methyl esters with heat under vacuum and recovered through condensation for reuse in the process. Water for the condenser circulates in a closed loop system to the cooling tower. This recovered methanol is stored in an outdoor 6,000 gallon tank. After methanol has been removed from the methyl ester phase the product is cooled, and a small amount of methanol free glycerol forms on the bottom of the reactor. This glycerol is transferred to totes. Further glycerol separation from methyl esters is achieved by allowing additional time for separation in the totes. Impurities in the methyl esters are removed by addition of magnesium silicate (Magnesol). The resulting nonhazardous material is removed via a filter press, and the filter cake collected and hauled to a landfill. The separated methyl esters product from the filter press is pumped to one of two bulk storage tanks from which it is loaded onto bulk tankers as finished product.

Crude glycerin mixed with methyl ester is stored in totes outside on a concrete pad. Storm water from this pad drains into a common ditch and then into a three chambered concrete basin. The first two cells have a total capacity of 104,000 gallons. An overflow in the cell wall allows overflow into the second cell which has a pontoon aerator and internal circulation. An emergency overflow allows for transfer to the third aerated chamber. The total capacity of the chambers is 367,000 gallons. At the time of the site visit, there was scum floating on the basin, and this material appeared to be from tote leakage. There was an odor which may have been from animal fat.

After approximately seven batches of methyl ester have been processed, accumulated glycerol methanol mixture is pumped from one of two storage tanks into the reactor. The methanol is separated from the glycerol with heat and vacuum and is recovered through condensation for reuse in the process. The glycerol is then cooled, diluted with twenty percent water, and neutralized. The crude glycerol water mixture is pumped to two bulk storage tanks from which it is loaded onto bulk tankers as finished product.

**Attachment C**  
**Topographic Map**



<p>SOURCE:</p> <p>USGS TOPOGRAPHIC MAP PRICE, VA. - NC QUADRANGLE DATED 1964 AND PHOTOINSPECTED 1982 SCALE: 1" = 2000'</p>	<p><b>ECS LTD</b></p> <p>ENGINEERING CONSULTING SERVICES, LTD</p>	<p>FIGURE 1</p> <p>SITE LOCATION MAP</p> <p>126 RESERVOIR ROAD RIDGWAY, VA</p> <p>ECS PROJECT G-5400</p>
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Site = Green  
 126 Reservoir Road = Blue  
 126 Reservoir Road = Red

## **Attachment D**

### **Ground Water Monitoring Data**

Chesapeake Custom Chemical, VPA Permit No. VPA02001  
Summary of Ground Water Monitoring Data - Monitoring Well 1 (Upgradient)

Date	pH	Elevation ft	Ammonia-N mg/L	Nitrate N mg/L	COD mg/L	Formaldehyde mg/L	Arsenic mg/L	Di-n-butyl- Pthalate mg/L	Total Dissolved Solids mg/L
GW Standard	5.5 to 8.5	n/a	0.025	5.00	n/a	n/a	0.05	n/a	250
Jan-91	7.2	25.6	<0.05	<0.05	<20	<0.5			
Feb-91	6.8	25.5	0.06	<0.56	<20	<0.05	<0.001	<0.005	
Mar-91	6.4	25.8	<0.05	<0.05	<20	<0.05			
Apr-91	6.3	24	0.16	0.47	<20	<0.5			
May-91	6.4	25.25	0.09	0.42	<20	<0.5			
Jun-91	6.2	24.5	<0.05	0.47	<20	<0.5	<0.001		
Jul-91	6.4	23.6	<0.1	<0.05	<20	<0.5			
Aug-91	6.4	24.3	<0.1	1.05	<20	<0.5			
Sep-91	7.0	23.1	0.05	0.51	<20	<0.5			
Oct-91	6.7	27	0.3	<0.05	<20	<0.5	0.001		
Nov-91	6.3	27.5	0.5	0.29	<20	<0.5			
Dec-91	6.1	27.75	0.5	0.45	<20	<0.5			
Jan-92	6.3	21.4	1.2	0.31	<20	<0.5			
Feb-92	6.5	30.6	0.1	0.35	<20	<0.5	<0.001	<0.005	
Mar-92	6.7	30.1	0.1	0.34	<20	<0.5			
Apr-92	6.7	26	0.1	0.33	<20	<0.5			
May-92	6.5	27.8	0.1	0.36	<20	<0.5			
Jun-92	6.4	25.83	<0.1	1.95	<20	<0.5	<0.001		
Jul-92	6.1	26.6	<0.1	1.24	<20	<0.5			
Aug-92	6.1	28	<0.1	0.44	<20	<0.5			
Sep-92	6.1	26.6	0.2	0.41	<20	<0.5			
Oct-92	6.6	26.3	0.2	0.43	<20	<0.5	<0.001		
Nov-92	6.0	28.6	<0.1	0.37	<20	<0.5			
Dec-92	6.1	28.7	0.6	0.20	<20	<0.5			
Jan-93	6.3	28.4	0.1	0.39	<20	<0.5			
Feb-93	6.0	26.5	0.1	0.49	<20	<0.5	<0.001	<0.001	
Mar-93	5.9	26.3	0.1	0.59	<20	<0.5			
Apr-93	6.0	26.08	<0.1	0.52	<20	<0.5			
May-93	6.0	26.6	<0.1	0.27	<20	<0.5			
Jun-93	6.1	25.6	<0.1	6.13	<20	<0.5	<0.001		
Jul-93	5.6	25.4	<0.1	0.32	<20	<0.5			
Aug-93	6.3	26.2	<0.1	0.42	<20	<0.5			
Sep-93	6.1	25.4	0.1	0.44	<20	<0.5			
Oct-93	6.2	25.2	<0.1	0.57	<20	<0.5	<0.001		
Nov-93	6.5	26.3	<0.1	0.49	<20	<0.5			
Dec-93	6.2	26.1	<0.1	0.50	<20	<0.5			
Jan-94	6.6	28.2	<0.1	0.42	<20	<0.5			
Feb-94	7.1	27.9	<0.1	0.17	<20	<0.5	<0.001	<0.005	
Mar-94	6.7	27.6	<0.1	<0.05	<20	<0.5			
Apr-94	6.5	28.3	<0.1	0.63	<20	<0.5			
May-94	6.3	28.5	0.2	0.68	<20	<0.5			
Jun-94	6.6	28.6	<0.1	0.46	<20	<0.5	0.001		
Jul-94	6.3	27.7	<0.1	0.13	<20	<0.5			
Aug-94	6.8	28.2	0.2	0.50	<20	<0.5			
Sep-94	7.3	28.1	<0.1	0.45	<20	<0.5			
Oct-94	6.1	28.2	<0.1	0.45	<20	<0.5			
Nov-94	6.5	28.7	<0.1	0.37	<20	<0.5			
Dec-94	6.2	28.6	0.2	0.45	<20	<0.5			
Jan-95	6.1	28.5	<0.1	0.35	<20	<0.5			
Feb-95	6.4	28.6	0.2	0.44	<20	<0.5	0.001	<0.005	
Mar-95	6.5	28.7	0.5	0.74	<20	<0.5			
Apr-95	5.9	28.8	0.4	0.93	<20	<0.5			
May-95	6.2	28.9	<0.1	1.07	<20	<0.5			
Jun-95	6.7	28.7	0.4	0.71	<20	<0.5	0.001		
Jul-95	6.3	28.6	<0.1	0.91	<20	<0.5			
Aug-95	6.6	28.5	<0.1	1.21	<20	<0.5			
Sep-95	6.2	28.9	0.1	1.16	<20	<0.5			
Oct-95	5.7	28.5	0.2	1.07	<20	<0.5	<0.001		
Nov-95	7.5	28.7	<0.1	0.85	<20	<0.5			
Dec-95	6.8	28.6	<0.1	1.04	<20	<0.5			
Jan-96	7.3	28.5	<0.1	1.14	<20	<0.5	<0.001	<0.005	
Feb-96	6.5	28.8	<0.1	1.14	<20	<0.5			
Mar-96	7.2	28.6	<0.1	0.88	<20	<0.5			
Apr-96	7.1	28.4	<0.1	1.06	<20	<0.5	0.002		
May-96	8.0	28.2	0.3	0.83	<20	<0.5			
Jun-96	7.1	28.3	<0.1	0.89	<20	<0.5			
Jul-96	8.1	28.6	<0.1	0.75	<20	<0.5	<0.002		
Aug-96	8.3	28.2	0.1	0.57	<20	<0.5			
Sep-96	6.3	28.2	<0.1	0.50	<20	<0.5			

Chesapeake Custom Chemical, VPA Permit No. VPA02001  
Summary of Ground Water Monitoring Data - Monitoring Well 1 (Upgradient)

Date	pH	Elevation SU ft	Ammonia-N mg/L	Nitrate N mg/L	COD mg/L	Formaldehyde mg/L	Arsenic mg/L	Di-n-butyl- Pthalate mg/L	Total Dissolved Solids mg/L
Oct-96	6.1	28.6	<0.1	0.54	<20	<0.5	<0.002		
Nov-96	7.3	28.4	<0.1	0.56	<20	<0.5			
Dec-96	7.0	28.6	0.2	0.49	<20	<0.5			
Jan-97	7.1	28.2	<0.1	0.50	<20	<0.5	<0.002	<0.005	
Feb-97	7.1	28.4	0.2	0.05	<20	<0.5			
Mar-97	6.9	28.5	<0.1	0.57	<20	<0.5			
Apr-97	6.8	28.5	<0.1	0.56	<20	<0.5			
May-97	7.2	28.4	<0.1	0.61	<20	<0.5	<0.002		
Jun-97	7.8	28.5	<0.1	0.48	<20	<0.5			
Jul-97	6.5	28.2	<0.1	0.49	<20	<0.5			
Aug-97	6.1	28.5	<0.1	0.54	<20	<0.5	<0.002		
Sep-97	6.9	28.6	<0.1	0.40	<20	<0.5			
Oct-97	6.8	28.4	<0.1	0.50	<20	<0.5			
Nov-97	6.1	28.6	<0.1	0.54	<20	<0.5	<0.002		
Dec-97	7.4	28.6	<0.1	0.49	<20	<0.5	<0.002		
Jan-98	6.8	28.1	<0.1	0.48	<20	<0.5	<0.002	<0.005	
Feb-98	5.1	28.2	<0.1	0.52	<20	<0.5			
Mar-98	5.3	28.0	<0.1	0.54	<20	<0.5			
Apr-98	5.3	28.2	<0.1	0.63	<20	<0.5	<0.002		
May-98	5.6	28.0	<0.1	0.65	<20	<0.5			
Jun-98	5.4	28.1	<0.1	0.70	<20	<0.5			
Jul-98	5.3	28.3	<0.1	0.66	<20	<0.5	<0.002		
Aug-98	5.4	28.2	<0.1	0.65	<20	<0.5			
Jan-99	5.7	28.2	<0.1	1.01	<20				50
Apr-99	5.4	28.3	<0.1	1.29	<20				70
Jul-99	5.8	28.1	<0.1	1.12	<20				74
Oct-99	5.7	28.3	<0.1	1.70	<20				70
Jan-00	6.4	28.1	<0.1	1.33	<20				169
Apr-00	5.4	28.3	<0.1	1.94	<20				72
Jul-00	5.6	28.2	<0.1	2.59	<20				92
Oct-00	5.2	28.1	<0.1	2.72	<20				87
Jan-01	5.6	28.2	<0.1	2.59	<20				92
Apr-01	5.2	28.1	<0.1	2.72	<20				87
Jul-01	6	28	<0.1	2.77	<20				22
Oct-01	5.2	30.2	<0.1	2.74	<20				95
Jan-02	5.2	30.1	<0.1	2.66	<20				74
Apr-02	5.2	30.6	<0.1	2.56	<20				80
Jul-02	6.2	28.0	2.49	2.49	<20				277
Oct-02	5.9	28.1	<0.1	1.11	<20				91
Jan-03	5.7	27.3	<0.1	2.17	<20				88
Apr-03	5.6	27.0	<0.1	1.03	<20				112
Mar-03			<0.1	2.17	<20				88
Jul-03			<0.1	1.03	<20				112
Oct-03	6.9	28.7	<0.1	0.97	<20				102
Dec-03	5.1	29.0	0.7	14.1	<20				153
Feb-04	5.5	28.4	0.8	7.32	<20				97
Jun-04			<0.1	0.91	<20				99
Sep-04			<0.1	1.99	<20				69
Dec-04			<0.1	4.14	<10				60
Mar-05			2.7	1.24	<10				236
Sep-05			<1	1.32	<10				78
Jan-06	6.05	28	<1	0.79	<10				107
Apr-06	6.10	30.2	<0.10	1.15	<10				82
Jul-06	6.1	28.85	<0.10	0.8	<10				104
Oct-06	6.99	29	<0.10	0.88	<10				124
Jan-07	6.8	27	0.18	1.5	<25				64
Apr-07	6.2	29.58	<0.10	1.1	<25				66
Jul-07	7.0	29.5	<0.10	0.9	<25				78
Oct-07	7.0	30.8	<0.10	0.72	<25				74
Jan-08	5.64	31.0	<0.10	1.3	<25				74
Apr-08	6.91	31.0	<0.10	1.3	71.5				96
Jul-08	6.9	30.7	<0.10	2.0	<25.0				120



Chesapeake Custom Chemical, VPA Permit No. VPA02001  
Summary of Ground Water Monitoring Data - Monitoring Well 2 (Downgradient)

Date	pH SU	Elevation ft	Ammonia-N mg/L	Nitrate N mg/L	COD mg/L	Formaldehyde mg/L	Arsenic mg/L	Di-n-butyl- Pthalate mg/L	Total Dissolved Solids mg/L
GW Standard	5.5 to 8.5	n/a	0.025	5.00	n/a	n/a	0.05	n/a	250
Jan-91	6.1	13.7	0.06	<0.05	3030	500			
Feb-91	5.6	12.2	<0.05	0.54	3400	500	<0.001	<0.005	
Mar-91	5.8	12.4	1.15	<0.05	3210	500			
Apr-91	5.7	13	1.131	0.34	3200	500			
May-91	5.6	10.8	0.83	0.38	3280	500			
Jun-91	5.5	10.7	<0.05	0.29	3300	500	<0.001		
Jul-91	5.3	10.4	1.3	<0.05	4480	1000			
Aug-91	5.6	10.4	<0.1	0.22	3118	1000			
Sep-91	5.6	11.6	2.1	0.25	3500	1000			
Oct-91	7.0	11.8	<0.1	<0.05	4060	500	<0.001		
Nov-91	5.8	14.6	1.0	0.24	1925	1000			
Dec-91	5.6	13	<0.1	0.07	2350	500			
Jan-92	5.6	12.4	1.9	0.12	2325	500			
Feb-92	5.8	15	<0.1	<0.05	2272	500	<0.001	<0.005	
Mar-92	6.1	15.75	<0.1	<0.05	1558	250			
Apr-92	6.0	17.6	1.8	<0.05	1583	250			
May-92	5.6	14.9	5.6	0.17	1670	250			
Jun-92	5.7	14.1	<0.1	0.36	1015	100	<0.001		
Jul-92	6.5	14.3	<0.1	0.51	1185	250			
Aug-92	5.8	17.4	2.8	0.78	636	100			
Sep-92	5.7	17.3	3.1	0.15	2420	125			
Oct-92	5.9	17.4	3.4	0.60	764	100	0.002		
Nov-92	6.0	17.8	4.8	0.99	480	100			
Dec-92	6.0	17.6	2.3	1.64	368	100			
Jan-93	5.9	17.7	3.8	1.98	312	100			
Feb-93	5.9	17.8	3.4	2.67	329	100	<0.001	<0.001	
Mar-93	10.1	17.4	2.9	1.48	313	100			
Apr-93	5.9	17.9	2.9	2.37	354	100			
May-93	5.8	17.6	3.5	1.86	532	100			
Jun-93	5.6	17.2	3	1.14	774	100	<0.001		
Jul-93	5.8	17.4	6.2	0.54	974	100			
Aug-93	5.6	17.2	7.4	<0.05	2850	100			
Sep-93	5.8	17.5	9.6	0.32	1780	100			
Oct-93	6.8	17.3	0.4	<0.05	2190	100	<0.003		
Nov-93	6.0	17.4	16.6	<0.05	2165	100			
Dec-93	6.0	17.2	22	<0.05	2880	100			
Jan-94	6.1	17.4	27	<0.05	1585	100			
Feb-94	6.3	17.3	17.1	<0.05	1170	100	<0.001	0.005	
Mar-94	6.1	17.1	11	<0.05	792	100			
Apr-94	6.1	17.4	5	0.11	734	100			
May-94	5.9	17.6	10.2	<0.05	740	100			
Jun-94	6.6	17.6	5.8	<0.05	542	100	0.001		
Jul-94	6.4	17.1	14.6	<0.05	1560	100			
Aug-94	6.7	17.5	12.8	0.53	950	<0.5			
Sep-94	7.3	17.6	17	<0.05	943	100			
Oct-94	6.1	17.4	12.6	0.13	717	100	0.003		
Nov-94	6.6	17.6	14.4	<0.05	744	100			
Dec-94	6.2	17.6	14.6	<0.05	660	100			
Jan-95	6.2	17.5	14	<0.05	601	100			
Feb-95	6.6	17.8	31	<0.05	540	100	0.004	<0.005	
Mar-95	6.2	17.6	28	<0.05	392	50			
Apr-95	6.3	17.8	14	<0.05	427	10			
May-95	6.2	17.7	15	0.56	290	5.0			
Jun-95	6.1	17.8	12	<0.56	126	10.0	0.001		
Jul-95	6.3	17.8	9.6	<0.05	103	5.0			
Aug-95	6.5	17.5	7.8	<0.05	111	1.0			
Sep-95	6.3	17.7	5.9	0.47	82	0.5			
Oct-95	6.0	17.6	7.6	0.20	82	0.5	0.002		
Nov-95	7.0	17.8	7.2	0.32	98	<0.5			
Dec-95	6.2	17.5	8.5	0.07	1.09	<0.5			
Jan-96	6.3	17.7	9	0.09	68	<0.5	<0.001	<0.005	
Feb-96	6.2	17.9	7.7	<0.05	52	<0.5			
Mar-96	6.1	17.8	4.9	0.24	72	<0.5			
Apr-96	6.2	17.6	7.1	<0.05	67	<0.5	0.005		
May-96	6.3	17.7	7.7	<0.05	78	<0.5			
Jun-96	5.9	17.5	<0.1	<0.05	58	<0.5			
Jul-96	6.2	17.9	7.4	<0.05	56	<0.5	0.004		
Aug-96	6.4	17.6	9.6	<0.05	95	<0.5			
Sep-96	6.1	17.5	6.4	<0.05	65	<0.5			
Oct-96	6.0	17.8	5.5	0.05	57	<0.5	<0.002		
Nov-96	6.6	17.7	7.4	0.13	51	<0.5			
Dec-96	7.1	17.5	<0.1	1.60	<20	<0.5			
Jan-97	6.0	17.5	7.4	<0.05	52	<0.5	<0.002	<0.005	
Feb-97	6.0	17.5	4.4	<0.05	60	<0.5			
Mar-97	6.2	17.3	5.9	<0.05	108	<0.5			
Apr-97	6.0	17.5	0.2	<0.05	48	<0.5			

Chesapeake Custom Chemical, VPA Permit No. VPA02001  
Summary of Ground Water Monitoring Data - Monitoring Well 2 (Downgradient)

Date	pH SU	Elevation ft	Ammonia-N mg/L	Nitrate N mg/L	COD mg/L	Formaldehyde mg/L	Arsenic mg/L	Di-n-butyl- Pthalate mg/L	Total Dissolved Solids mg/L
GW Standard	5.5 to 8.5	n/a	0.025	5.00	n/a	n/a	0.05	n/a	250
May-97	6.5	17.5	3.4	<0.05	57	<0.5	<0.002		
Jun-97	6.2	17.4	3.7	<0.05	73	<0.5			
Jul-97	6.1	17.3	8.0	<0.05	48	<0.5			
Aug-97	6.3	17.5	3.0	<0.05	54	<0.5	<0.002		
Sep-97	6.2	17.4	4.2	<0.05	84	<0.5			
Oct-97	6.7	17.5	8.1	<0.05	66	<0.5			
Nov-97	5.7	17.4	6.7	0.13	68	<0.5	<0.002		
Dec-97	6.3	17.3	5.1	<0.05	76	<0.5	<0.002		
Jan-98	5.9	17.2	8.6	0.18	116	<0.5	<0.002	<0.005	
Feb-98	6.0	17	6.2	0.26	55	<0.5			
Mar-98	6.0	17.1	4.7	0.65	73	<0.5			
Apr-98	6.0	17.1	4.7	<0.05	70	<0.05	0.002		
May-98	6.2	17	5.4	<0.05	52	<0.05			
Jun-98	6.0	17.1	5.0	<0.05	69	<0.05			
Jul-98	6.1	17.2	5.8	0.12	51	<0.05	<0.002		
Aug-98	6.0	17.1	7.4	<0.05	55	<0.5			
Jan-99	6.3	17.2	5.5	<0.05	49				590
Apr-99	6.1	17.1	8.9	<0.05	77				760
Jul-99	6.4	17.0	6.7	0.10	62				680
Oct-99	6.1	17.0	5.5	0.44	25				50
Jan-00	6.2	17.0	4.9	0.39	40				82
Apr-00	6.1	17.0	5	0.14	44				516
Jul-00	6.2	17.0	5.5	0.34	52				28
Oct-00	6.2	17.0	4.2	0.56	79				806
Jan-01	6.0	17.1	4.1	0.21	50				630
Apr-01	6.2	17.3	4.8	0.26	65				656
Jul-01	5.7	17.4	4.8	1.33	41				488
Oct-01	5.2	18.6	6.0	0.59	71				700
Jan-02	6	18.6	5.6	0.07	67				620
Apr-02	5.8	18.8	5.4	0.44	43				534
Jul-02	6.1	17.0	0.55	0.50	23				212
Oct-02	6.2	17.0	3.2	5.03	<20				343
Mar-03	5.9	16.7	3.0	4.77	51				288
Jul-03	6.1	16.6	3.1	10.2	32				424
Oct-03	5.5	13.9	2.8	7.44	<20				250
Dec-03	6.3	13.5	3.1	2.64	<20				199
Feb-04	6.4	17.6	3.7	1.00	<20				228
Jun-04			4.9	0.57	62				514
Sep-04			2.6	3.55	<20				186
Dec-04			3.2	1.74	31				244
Mar-05			2.5	1.19	13				251
Sep-05			3.3	3.7	49				501
Jan-06	6.07	5.0	3.88	1.5	59				639
Apr-06	6.05	10.0	3.68	0.82	57				736
Jul-06	6.1	14.4	<0.10	1.42	22				331
Oct-06	6.23	9.8	1.08	1.75	17				377
Jan-07	6.21	9.8	1.00	5.0	<25				170
Apr-07	6.1	14.3	0.89	5.8	<25				160
Jul-07	6.20	12.0	2	2.9	<25				770
Oct-07	8.8	8.8	5.2	0.19	89				598
Jan-08	6.01	10.17	5.6	0.55	<25				564
Apr-08	6.25	10.2	1.8	0.64	49.7				528
Jul-08	6.3	11.8	3.8	3.3	45.0				486

Chesapeake Custom Chemical, VPA Permit No. VPA02001  
Summary of Ground Water Monitoring Data - Monitoring Well 3 (Downgradient)

Date	pH	Elevation SU ft	Ammonia-N mg/L	Nitrate N mg/L	COD mg/L	Formaldehyde mg/L	Arsenic mg/L	Di-n-butyl- Pthalate mg/L	Total Dissolved Solids mg/L
GW Standard	5.5 to 8.5	n/a	0.025	5.00	n/a	n/a	0.05	n/a	250
Jan-91	6.6	1	1.3	0.12	<20	<0.5			
Feb-91	6.0	0.8	0.26	1.27	<20	<0.5	<0.001	<0.005	
Mar-91	6.5	0.6	0.39	<0.05	<20	<0.5			
Apr-91	5.8	0.3	0.08	1.53	<20	<0.5			
May-91	5.8	0.3	<0.05	1.52	<20	<0.5			
Jun-91	5.7	0.3	<0.05	1.62	<20	<0.5	<0.001		
Jul-91	5.6	0.3	0.2	0.09	<20	<0.5			
Aug-91	6.0	1.8	<0.1	3.50	<20	<0.5			
Sep-91	6.2	2.1	0.3	1.34	<20	<0.5			
Oct-91	5.4	2	2.6	<0.05	<20	<0.5	<0.001		
Nov-91	5.9	2.8	4	0.92	<20	<0.5			
Dec-91	5.8	2	3.5	0.84	<20	<0.5			
Jan-92	6.8	2	0.2	0.89	<20	<0.5			
Feb-92	7.8	2.35	<0.1	0.89	<20	<0.5	<0.001	<0.005	
Mar-92	7.2	1.5	2.0	<0.05	<20	<0.5			
May-92	6.1	2.0	3.5	1.19	<20	<0.5			
Apr-92	7.1	2.4	0.1	1.08	<20	<0.5			
Jun-92	6.1	1.4	3.2	2.90	<20	<0.5	<0.001		
Jul-92	6.1	1.4	<0.1	1.26	<20	<0.5			
Aug-92	5.9	5.3	3.5	1.16	<20	<0.5			
Sep-92	6.0	3.5	4.5	1.35	<20	<0.5			
Oct-92	6.1	3.8	3.4	1.59	<20	<0.5	<0.001		
Nov-92	5.9	3.5	4.3	0.88	<20	<0.5			
Dec-92	5.9	3.2	3.3	1.16	<20	<0.5			
Jan-93	5.9	3.6	6	1.20	<20	<0.5			
Feb-93	5.8	1.75	5.1	1.10	<20	<0.5	<0.001	<0.005	
Mar-93	5.8	0.6	2.7	1.23	<20	<0.5			
Apr-93	5.7	0.03	<0.1	1.49	<20	<0.5			
May-93	5.7	0.15	<0.1	2.00	<20	<0.5			
Jun-93	5.6	0.4	<0.1	1.85	<20	<0.5	<0.001		
Jul-93	5.7	1	0.2	1.79	<20	<0.5			
Aug-93	5.9	0.6	1.5	2.84	<20	<0.5			
Sep-93	5.8	1.3	2.2	1.25	<20	<0.5			
Oct-93	6.3	1.1	2.3	1.11	<20	<0.5	<0.001		
Nov-93	6.2	1.2	3.8	1.10	<20	<0.5			
Dec-93	6.0	1	5.4	0.92	<20	<0.5			
Jan-94	5.9	2.8	3.1	0.39	<20	<0.5			
Feb-94	6.3	2.1	2.6	0.75	<20	<0.5	<0.001	<0.005	
Mar-94	6.0	1.8	0.4	<0.05	<20	<0.5			
Apr-94	6.0	1.5	<0.1	1.14	<20	<0.5			
May-94	5.9	1.2	0.1	1.37	<20	<0.5			
Jun-94	7.7	1.8	<0.1	1.40	<20	<0.5	<0.001		
Jul-94	6.1	1.5	0.9	1.23	<20	<0.5			
Aug-94	6.5	1.8	2.2	1.50	<20	<0.5			
Sep-94	7.2	1.6	1.9	1.09	<20	<0.5			
Oct-94	5.8	1.5	3.0	0.95	<20	<0.5	<0.001		
Nov-94	6.2	1.8	3.1	0.97	<20	<0.5			
Dec-94	5.8	2.1	<0.1	1.71	<20	<0.5			
Jan-95	5.6	2.2	3.0	0.77	<20	<0.5			
Feb-95	6.1	2.1	3.9	0.68	<20	<0.5	0.001	<0.005	
Mar-95	6.3	1.8	1.8	1.02	<20	<0.5			
Apr-95	5.8	2.2	1.4	1.10	<20	<0.5			
May-95	6.0	2.1	2.0	0.89	<20	<0.5			
Jun-95	6.1	1.8	1.9	1.07	<20	<0.5	0.003		
Jul-95	6.0	1.6	1.1	1.07	<20	<0.5			
Aug-95	6.4	1.8	1.6	1.32	<20	<0.5			
Sep-95	5.8	2.1	2.0	1.18	<20	<0.5			
Oct-95	6.1	1.6	2.5	1.12	<20	<0.5	0.002		
Nov-95	6.8	2.1	1.9	1.25	<20	<0.5			
Dec-95	6.7	1.8	1.4	1.18	<20	<0.5			
Jan-96	7.4	1.4	0.9	1.20	<20	<0.5	<0.001	<0.005	
Feb-96	6.1	1.3	0.1	1.65	<20	<0.5			
Mar-96	7.2	1.5	<0.1	1.16	<20	<0.5			
Apr-96	7.2	1.3	0.1	1.00	<20	<0.5	<0.002		
May-96	7.4	1.2	0.1	1.49	<20	<0.5			
Jun-96	6.4	1.4	<0.1	1.62	<20	<0.5			
Jul-96	8.0	1.5	<0.1	1.56	<20	<0.5	<0.002		
Aug-96	6.5	1.2	<0.1	1.41	<20	<0.5			

Chesapeake Custom Chemical, VPA Permit No. VPA02001  
Summary of Ground Water Monitoring Data - Monitoring Well 3 (Downgradient)

Date	pH	Elevation SU ft	Ammonia-N mg/L	Nitrate N mg/L	COD mg/L	Formaldehyde mg/L	Arsenic mg/L	Di-n-butyl- Pthalate mg/L	Total Dissolved Solids mg/L
GW Standard	5.5 to 8.5	n/a	0.025	5.00	n/a	n/a	0.05	n/a	250
Sep-96	6.2	1.2	<0.1	2.48	<20	<0.5			
Oct-96	6.4	1.5	<0.1	1.51	<20	<0.5	<0.002		
Nov-96	7.3	1.2	<0.1	1.52	<20	<0.5			
Dec-96	6.2	1.5	10.7	<0.05	81	<0.5			
Jan-97	6.5	1.4	<0.1	1.73	<20	<0.5	<0.002	<0.005	
Feb-97	6.8	1.6	<b>0.4</b>	1.73	<20	<0.5			
Mar-97	6.5	1.4	<b>0.3</b>	1.88	<20	<0.5			
Apr-97	6.3	1.4	<0.1	1.52	<20	<0.5			
May-97	6.9	1.6	<0.1	1.75	<20	<0.5	0.009		
Jun-97	6.5	1.4	<0.1	1.53	<20	<0.5			
Jul-97	6.6	1.2	<0.1	1.76	<20	<0.5			
Aug-97	6.0	1.6	<0.1	1.95	<20	<0.5	<0.002		
Sep-97	6.5	1.6	<0.1	1.85	<20	<0.5			
Oct-97	6.9	1.6	<0.1	1.84	<20	<0.5			
Nov-97	6.0	1.6	<0.1	2.36	<20	<0.5	<0.002		
Dec-97	6.5	1.4	<0.1	2.24	<20	<0.5	<0.002		
Jan-98	6.9	0.6	<0.1	2.26	<20	<0.5	<0.002	<0.005	
Feb-98	5.1	0.4	<0.1	2.30	<20	<0.5			
Mar-98	5.2	0.3	<0.1	2.04	<20	<0.5			
Apr-98	4.9	0.2	<0.1	1.99	<20	<0.5	<0.002		
May-98	5.2	0.3	<0.1	1.82	<20	<0.5			
Jun-98	5.2	0.3	<0.1	1.80	<20	<0.5			
Jul-98	5.3	0.5	<0.1	1.94	<20	<0.5	<0.002		
Aug-98	5.2	0.4	<0.1	2.24	<20	<0.5			
Jan-99	5.7	0.3	<0.1	2.90	<20				60
Apr-99	5.2	0.3	<b>0.7</b>	2.62	<20				70
Jul-99	5.7	3?	<b>2.5</b>	2.31	<20				80
Dec-99	5.3	0.4	<b>1.5</b>	3.13	<20				70
Jan-00	5.0	0.5	<b>0.5</b>	3.19	<20				76
Apr-00	4.9	0.5	<b>0.2</b>	2.72	<20				66
Jul-00	6.5	0.5	<b>0.5</b>	3.97	<20				76
Oct-00	5.1	0.75	<0.1	3.46	<20				72
Jan-01	5.2	0.75	<b>0.7</b>	4.14	<20				80
Apr-01	5.0	0.5	<b>0.4</b>	3.97	<20				129
Jul-01	5.1	0.5	<b>1.1</b>	4.13	<20				100
Oct-01	5.6	7	<b>1.2</b>	4.43	<20				112
Jan-02	5.2	6.8	<b>1.6</b>	4.90	<20				93
Apr-02	5.1	6.6	<b>1.3</b>	4.96	<20				131
Jul-02	6.5	0.4	<b>6.4</b>	<b>6.39</b>	<20				135
Oct-02	6.0	0.3	<b>1.6</b>	<b>6.20</b>	<20				108
Jan-03	5.4	0.3	<0.1	3.55	<20				76
Apr-03	6.1	0.2	<0.1	2.60	<20				78
Mar-03	5.4	0.3	<0.1	3.55	<20				76
Jul-03	6.1	0.2	<0.1	2.60	<20				78
Oct-03	6.3	0.6	<0.1	2.05	<20				63
Dec-03	<b>5.0</b>	0.8	<b>0.8</b>	<b>14.4</b>	<20				32
Feb-04	5.6	0.3	<b>4.1</b>	2.75	<20				40
Mar-04			<0.1	0.96	<20				99
Jun-04			<b>1.1</b>	<b>8.33</b>	<20				120
Dec-04			<0.1	4.42	<10				57
Mar-05			<b>0.4</b>	<b>10.4</b>	<10				142
Sep-05			0.1	0.005	<10				10
Jan-06	<b>5.34</b>	0.3	<0.10	<b>8.8</b>	<10				116
Apr-06	5.52	2.9	<0.10	<b>8.65</b>	<10				119
Jul-06	5.61	3.6	<0.10	<b>9.05</b>	<10				135
Oct-06	5.6	5.4	<b>0.18</b>	<b>10.1</b>	<10				158
Jan-07	5.55	3.5	<0.10	<b>8.0</b>	<25				90
Apr-07	5.7	3.3	<0.10	<b>8.5</b>	<25				80
Jul-07	5.7	4.4	<0.10	<b>11</b>	<25				200
Oct-07	5.9	3.5	<b>0.18</b>	<b>10</b>	<25				166
Jan-08	<b>5.15</b>	5.2	<b>0.62</b>	0.62	<25				150
Apr-08	5.71	4.2	<0.10	<b>13.4</b>	32.4				168

Chesapeake Custom Chemical, VPA Permit No. VPA02001  
Summary of Ground Water Monitoring Data - **Monitoring Well 3** (Downgradient)

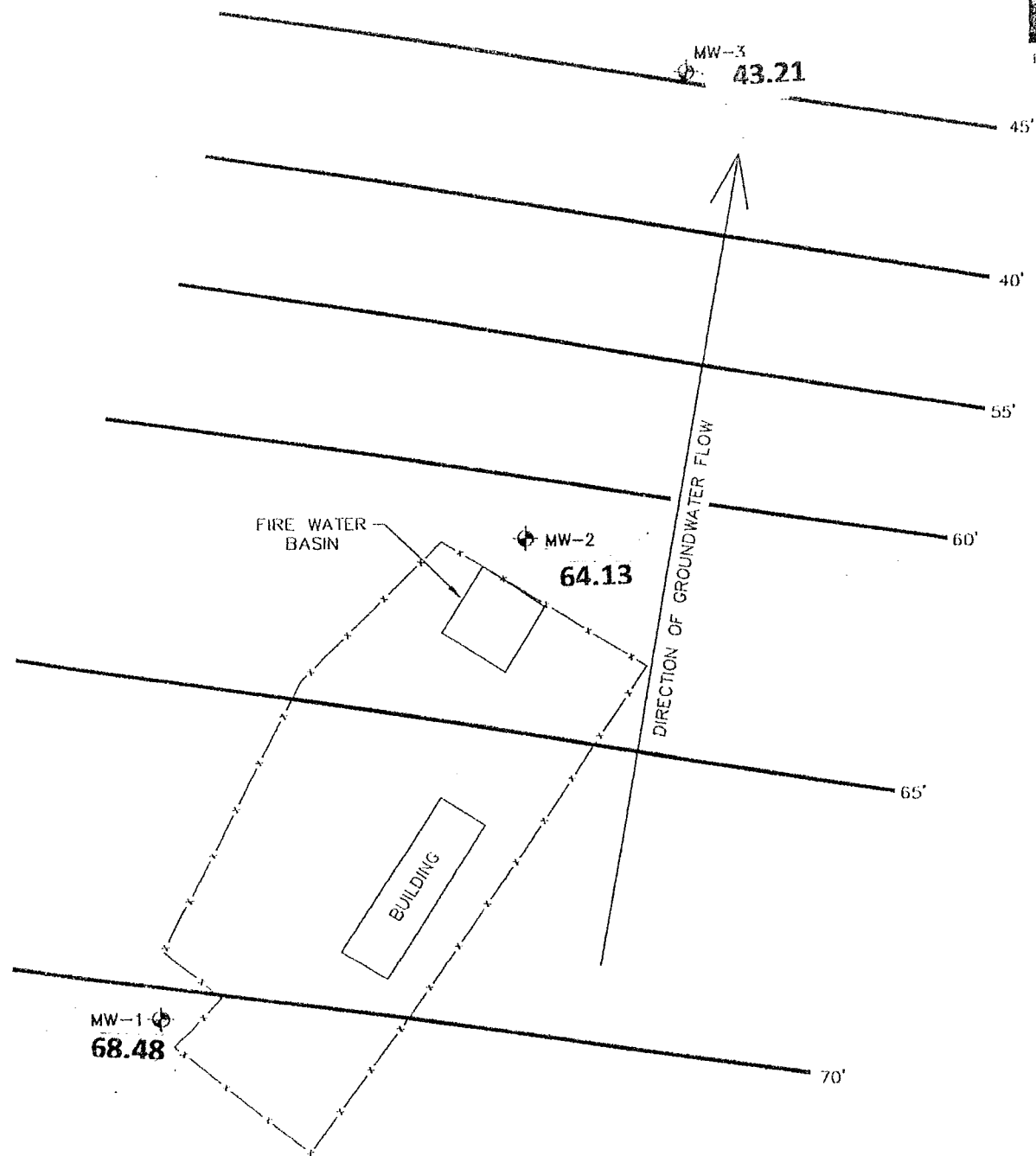
Date	pH	Elevation	Ammonia-N	Nitrate N	COD	Formaldehyde	Arsenic	Di-n-butyl- Pthalate	Total Dissolved Solids
	SU	ft	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
GW Standard	5.5 to 8.5	n/a	0.025	5.00	n/a	n/a	0.05	n/a	250
Jul-08	5.80	4.5	0.14	<0.10	<25.0				190

Chesapeake Custom Chemical, VPA Permit No. VPA02001  
Summary of Ground Water Monitoring Data - **Monitoring Well 4** (Drinking Water Well)

Date	pH SU	Elevation ft	Ammonia-N mg/L	Nitrate N mg/L	COD mg/L	Formaldehyde mg/L	Arsenic mg/L	Di-n-butyl- Pthalate mg/L	Total Dissolved Solids mg/L
GW Standard	5.5 to 8.5	n/a	0.025	5.00	n/a	n/a	0.05	n/a	250
Jan-91	7.6	n/a	<b>0.22</b>	0.28	<20	<0.5			
Feb-91	6.2	n/a	<0.05	1.57	<20	<0.5	<0.001	<0.005	
Mar-91	7.0	n/a	<0.05	<0.05	<20	<0.5			
Apr-91	6.2	n/a	<0.05	1.52	<20	<0.5			
May-91	5.9	n/a	<0.05	1.50	<20	<0.5			
Jun-91	5.8	n/a	<0.05	1.62	39	<0.5	<0.001		
Jul-91	6.0	n/a	<0.1	0.10	<20	<0.5			
Aug-91	6.0	n/a	<0.1	1.64	<20	<0.5			
Sep-91	5.9	n/a	<b>0.3</b>	1.53	<20	<0.5			
Oct-91	6.2	n/a	<0.1	<0.05	<20	<0.5	<0.001		
Nov-91	6.0	n/a	0.1	1.49	<20	<0.5			
Dec-91	5.6	n/a	0.2	1.38	<20	<0.5			
Jan-92	7.3	n/a	<0.1	1.44	<20	<0.5			
Feb-92	6.4	n/a	<0.1	1.21	<20	<0.5	<0.001	<0.005	
Mar-92	6.3	n/a	<0.1	1.21	<20	<0.5			
Apr-92	5.9	n/a	<0.1	1.32	<20	<0.5			
May-92	6.4	n/a	<b>0.22</b>	1.33	<20	<0.5			
Jun-92	6.1	n/a	<b>0.3</b>	1.65	20	0.5	<0.001		
Jul-92	6.8	n/a	<0.1	1.24	<20	<0.5			
Aug-92	6.3	n/a	<0.1	1.46	<20	<0.5			
Sep-92	5.7	n/a	<0.1	1.48	<20	<0.5			
Oct-92	6.2	n/a	<b>0.2</b>	1.39	<20	<0.5	<0.001		
Nov-92	5.9	n/a	<b>0.8</b>	1.35	<20	<0.5			
Dec-92	5.9	n/a	<b>0.1</b>	1.44	<20	<0.5			
Jan-93	6.3	n/a	<0.1	1.46	<20	<0.5			
Feb-93	5.7	n/a	<0.1	1.44	<20	<0.5	<0.001	<0.001	
Mar-93	5.8	n/a	<0.1	1.67	<20	<0.5			
Apr-93	5.8	n/a	<0.1	2.04	<20	<0.5			
May-93	5.7	n/a	<0.1	2.17	<20	<0.5			
Jun-93	5.7	n/a	<0.1	2.13	<20	<0.5	<0.001		
Jul-93	5.8	n/a	<b>0.2</b>	1.96	<20	<0.5			
Aug-93	6.0	n/a	<0.1	2.03	<20	<0.5			
Sep-93	5.9	n/a	<0.1	1.79	<20	<0.5			
Oct-93	6.1	n/a	<0.1	1.96	<20	<0.5	<0.001		
Nov-93	6.0	n/a	<0.1	1.86	<20	<0.5			
Dec-93	5.9	n/a	<0.1	1.82	<20	<0.5			
Jan-94	5.9	n/a	<0.1	1.65	<20	<0.5			
Feb-94	6.3	n/a	<0.1	1.28	<20	<0.5	<0.001	<0.001	
Mar-94	5.8	n/a	<0.1	0.20	<20	<0.5			
Apr-94	5.9	n/a	<0.1	1.98	<20	<0.5			
May-94	6.1	n/a	<0.1	1.74	<20	<0.5			
Jun-94	6.2	n/a	<0.1	1.82	<20	<0.5	<0.001		
Jul-94	6.1	n/a	<0.1	1.83	<20	<0.5			
Aug-94	6.7	n/a	<0.2	1.94	<20	<0.5			
Sep-94	7.1	n/a	<0.1	1.46	<20	<0.5			
Oct-94	5.8	n/a	0.1	1.37	<20	<0.5	<0.001		
Nov-94	6.1	n/a	<0.1	1.42	<20	<0.5			
Dec-94	6.0	n/a	<b>3.6</b>	0.89	<20	<0.5			
Jan-95	5.6	n/a	<0.1	1.48	<20	<0.5			
Feb-95	6.2	n/a	<b>0.2</b>	<0.05	<20	<0.5	<0.001	<0.001	
Mar-95	6.1	n/a	<0.1	1.83	<20	<0.5			
Apr-95	5.8	n/a	<b>0.4</b>	1.50	<20	<0.5			
May-95	6.0	n/a	<b>0.2</b>	1.96	<20	<0.5			
Jun-95	6.1	n/a	<0.1	1.88	<20	<0.5	<0.001		
Jul-95	5.9	n/a	<0.1	1.75	<20	<0.5			
Aug-95	6.8	n/a	<b>0.2</b>	2.08	<20	<0.5			
Sep-95	5.7	n/a	<0.1	2.04	<20	<0.5			
Oct-95	5.9	n/a	<0.1	1.76	<20	<0.5	<0.001		
Nov-95	6.8	n/a	0.1	1.75	<20	<0.5			
Dec-95	6.9	n/a	<0.1	1.88	<20	<0.5			
Jan-96	7.1	n/a	<0.1	2.02	<20	<0.5	<0.001	<0.005	
Feb-96	6.1	n/a	<b>0.1</b>	2.17	<20	<0.5			
Mar-96	6.3	n/a	<0.1	1.95	<20	<0.5			
Apr-96	6.8	n/a	<0.1	2.18	<20	<0.5	<0.002		
May-96	7.5	n/a	<0.1	2.09	<20	<0.5			
Jun-96	8.0	n/a	<b>6.1</b>	2.32	<20	<0.5			

Chesapeake Custom Chemical, VPA Permit No. VPA02001  
Summary of Ground Water Monitoring Data - **Monitoring Well 4** (Drinking Water Well)


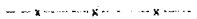
Date	pH SU	Elevation ft	Ammonia-N mg/L	Nitrate N mg/L	COD mg/L	Formaldehyde mg/L	Arsenic mg/L	Di-n-butyl- Pthalate mg/L	Total Dissolved Solids mg/L
GW Standard	5.5 to 8.5	n/a	0.025	5.00	n/a	n/a	0.05	n/a	250
Jul-96	7.4	n/a	<0.1	2.28	<20	<0.5	<0.002		
Aug-96	6.4	n/a	<0.1	2.25	<20	<0.5			
Sep-96	6.5	n/a	<0.1	1.10	<20	<0.5			
Oct-96	6.7	n/a	0.1	2.12	<20	<0.5	<0.002		
Nov-96	6.9	n/a	0.1	2.11	<20	<0.5			
Dec-96	6.8	n/a	<0.1	2.42	<20	<0.5			
Jan-97	6.4	n/a	<0.1	2.54	<20	<0.5	<0.002	<0.005	
Feb-97	6.5	n/a	0.1	2.37	<20	<0.5			
Mar-97	6.6	n/a	0.2	2.94	<20	<0.5			
Apr-97	6.2	n/a	<0.1	2.13	<20	<0.5			
May-97	7.1	n/a	<0.1	2.89	<20	<0.5	<0.002		
Jun-97	6.8	n/a	<0.1	3.23	<20	<0.5			
Jul-97	6.3	n/a	<0.1	3.61	<20	<0.5			
Aug-97	5.9	n/a	<0.1	3.53	<20	<0.5	<0.002		
Sep-97	6.9	n/a	<0.1	3.38	<20	<0.5			
Oct-97	7.2	n/a	<0.1	3.08	<20	<0.5			
Nov-97	5.5	n/a	<0.1	3.29	<20	<0.5	<0.002		
Dec-97	6.4	n/a	<0.1	2.95	<20	<0.5	<0.002		
Jan-98	5.9	n/a	<0.1	2.99	<20	<0.5	<0.002	<0.005	
Feb-98	5.0	n/a	<0.1	2.78	<20	<0.5			
Mar-98	5.2	n/a	<0.1	2.87	<20	<0.5			
Apr-98	4.8	n/a	<0.1	3.05	<20	<0.5	<0.002		
May-98	5.8	n/a	<0.1	3.14	<20	<0.5			
Jun-98	5.4	n/a	<0.1	3.20	<20	<0.5			
Jul-98	5.1	n/a	<0.1	3.26	<20	<0.5			
Aug-98	5.1	n/a	<0.1	3.54	<20	<0.5			
Jan-99	5.6	n/a	<0.1	5.73	<20				80
Apr-99	5.2	n/a	<0.1	3.86	<20				80
Jul-99	5.7	n/a	<0.1	3.76	<20				90
Dec-99	5.0	n/a	<0.1	6.27	<20				100
Jan-00	5.1	n/a	0.1	4.57	<20				82
Apr-00	5.2	n/a	<0.1	4.14	<20				232
Jul-00	6.2	n/a	<0.1	6.9	<20				99
Oct-00									
Jan-01	5.3	n/a	0.2	7.74	<20				115
Apr-01	5.1	n/a	<0.1	8.69	<20				129
Jul-01	4.8	n/a	<0.1	8.96	<20				144
Oct-01	5.2	n/a	<0.1	11.0	<20				163
Jan-02	5.2	n/a	<0.1	13.1	<20				141
Apr-02	4.8	n/a	<0.1	15.3	<20				198
Jul-02	6.6	n/a	8.52	8.5	<20				127
Oct-02	5.9	n/a	<0.1	14.8	<20				146
Mar-03	5.7	n/a	0.2	9.44	<20				144
Jul-03	5.9	n/a	0.6	2.58	<20				142
Oct-03	6.0	n/a	0.6	6.93	<20				142
Dec-03	6.6	n/a	<0.1	2.54	<20				50
Feb-04	5.5	n/a	0.7	11.3	<20				124
Jun-04		n/a	1.0	8.76	<20				155
Sep-04		n/a	1.1	8.46	<20				123
Dec-04		n/a	1.0	7.85	<20				121
Mar-05		n/a	1.1	8.39	<10				127
Sep-05		n/a	<0.1	13.8	<10				160
Jan-06	5.5	n/a	<0.10	12.2	<10				155



Depth measurements by Mike Calloway

Relative Ground Water Elevations Calculated by Allen French

LEGEND

-  MW-# MONITORING WELL
-  FENCED AREA

SHI-CCC-002

SCALE 1" = 150'

0 150 225 300 375 450

CHESAPEAKE CUSTOM CHEMICAL

DATE: JULY 28, 2006

DESIGN by: J.S.

DWG. by: L.O.I.

**SHERRILL ENVIRONMENTAL, INC.**

3326 Rugby Road • Durham, NC • 27707

Tel. (919) 493-6555

Fax (919) 493-6554

E-Mail [sherrill@encr.com](mailto:sherrill@encr.com)

**FIGURE 1**

**POTENTIOMETRIC SURFACE MAP**

**7/24/08**





# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

L. Preston Bryant, Jr  
Secretary of Natural Resources

West Central Regional Office  
3019 Peters Creek Road, Roanoke, Virginia 24019  
Telephone (540) 562-6700, Fax (540) 562-6725  
[www.deq.virginia.gov](http://www.deq.virginia.gov)

David K. Paylor  
Director

Steven A. Dietrich  
Regional Director

March 17, 2006

Mr. J. Allen French  
Chesapeake Custom Chemical Corporation  
PO Box 615  
Ridgeway, VA 24148

Re: **VPA Permit No. VPA02001, Chesapeake Custom Chemical Corporation, Ridgeway, Virginia; Approval of Revision to Groundwater Monitoring Plan; Required by Part I.B.7; Received March 13, 2006**

Dear Mr. French:

This letter is to notify you that the revision to your Groundwater Monitoring Plan, received March 13, 2006, has been reviewed and is hereby approved by the West Central Regional Office. The plan has been revised to omit the groundwater monitoring of well MW-4 because the well has gone dry. Upgradient well MW-1 and downgradient wells MW-2 and MW-3 will continue to be monitored in accordance with the permit. In accordance with Part I.D.10 of the facility's VPDES permit, the approved revised Groundwater Monitoring Plan is an enforceable condition of the permit.

The Department of Environmental Quality's approval of the proposed plan does not relieve the permittee (owner) of the responsibility for monitoring the facility in a reliable manner to meet all conditions of the referenced permit and State Water Control Law. In addition, this approval does not relieve the owner from meeting all other laws and regulations as may be applicable.

Please continue groundwater monitoring in accordance with your VPA permit. Should you have any questions about the permit, please contact Becky L. France at (540) 562-6793.

Sincerely,

A handwritten signature in cursive script that reads "Steven A. Dietrich".

Steven A. Dietrich, P.E.  
Regional Director  
West Central Regional Office

cc: Becky L. France, WCRO

126 Reservoir Road, PO Box 615, Ridgeway, VA 24148  
Office: 276-956-3145, Fax: 276-956-1444,  
FIN# 27-0125015

**Chesapeake Custom  
Chemical Corporation**

RECEIVED

MAR 13 2006

DEQ-WCRO

**Fax**

<b>To:</b>	Becky Freance	<b>From:</b>	Allen French	UPA 02001
<b>Fax:</b>	540-562-6860	<b>Pages:</b>	5	
		<b>Date:</b>	3/11/2006	
<b>Re:</b>	Corrections to Operations	<b>CC:</b>		
	& Maintenance Manual			

**Urgent      For Review      Please Comment      Please Reply      Per Your request**

Comments: Attn: Becky France

Becky:

Attached are the corrections you requested.

Also attached is a map of the facility on two pieces of paper. The second map continues where the first stops.

The well that went dry is labeled #4 and is down gradient to the plant as are well numbers 2 & 3.

Well number four is approximately 400 feet deep. We have pulled the pump and line out of the well.

Well number 5 also provides process water to the plant. It is located near the railroad tracks and is not really down gradient to the entire plant. We thus do not believe it would be an appropriate substitute for well number 4.

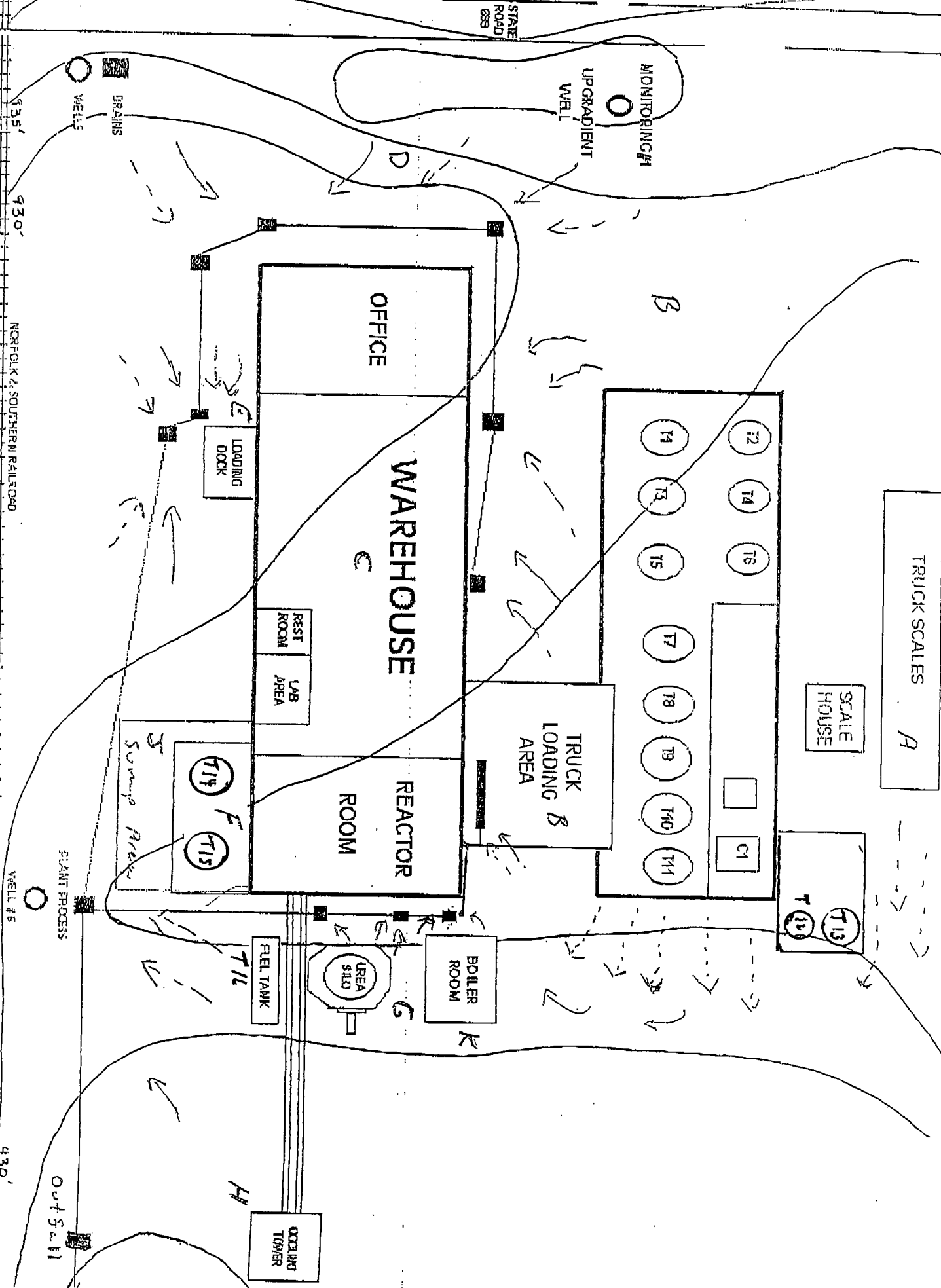
Thus we propose to submit ground water samples in the future from wells 1, 2, & 3. Please let us know what you would like us to do and we will comply.

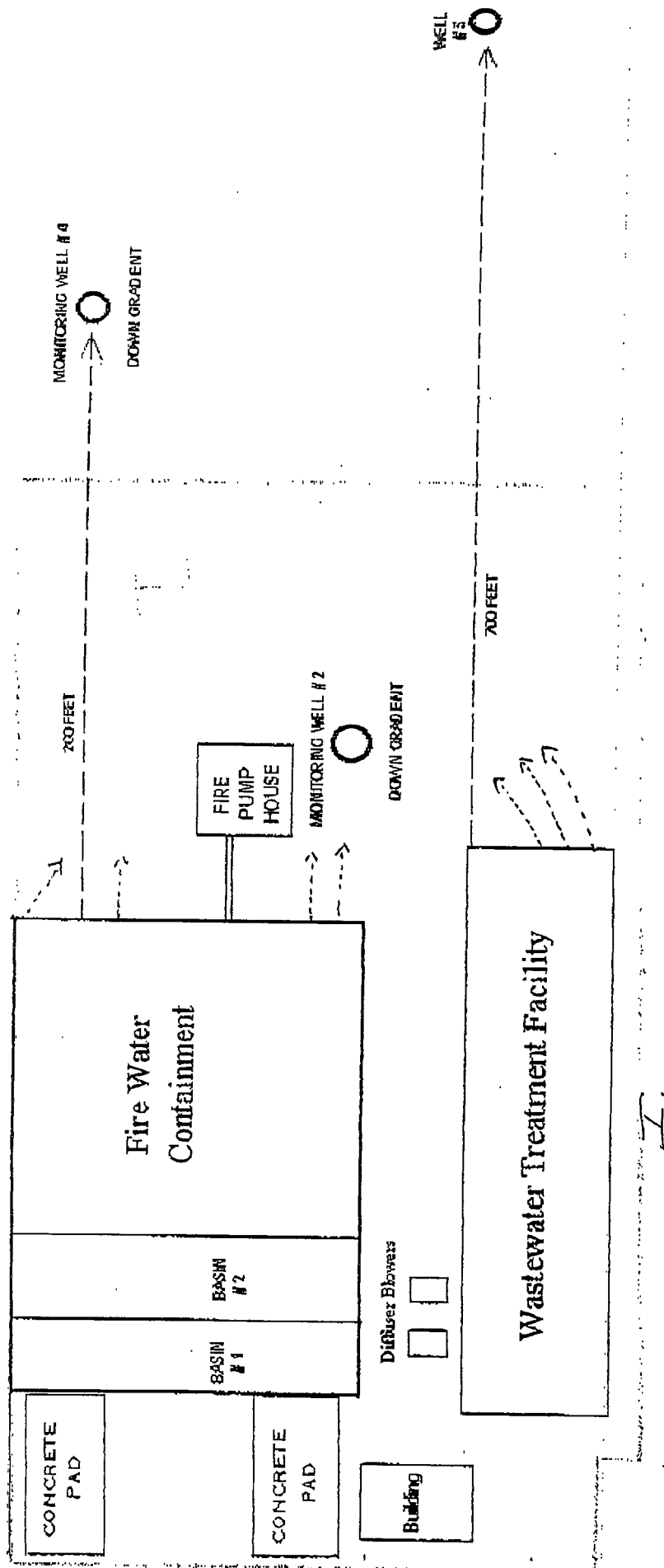
Please note in my letter to you on 2/25/06 I incorrectly labeled the dry well as number 2. The dry well is number 4.

With Best Regards

Allen French

Chesapeake Custom Chemical Corporation, Ridgeway Virginia





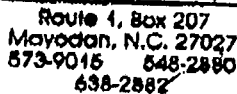
CHESAPEAKE CUSTOM CHEMICAL  
 126 RESERVOIR ROAD  
 P.O. BOX 615  
 RIDGEWAY, VA 24148

NORFOLK & SOUTHERN RAILROAD

FROM : SEACO

דעם 17טן יאנואר 1970

FILE NO. :



**Order No.**

Date August 26 19 88

Name Southeastern Adhesive

Address P. O. Box 527  
Ridgeway, Va. 24148

RECEIVED  
AUG 30 1988

All charges are due the 10th of the month following month of purchase and, if payment is not received by then, a 1 1/4% INTEREST AND SERVICE CHARGE will be added monthly to past due balances. This charge is equivalent to an interest rate of 15% PER ANNUM.

**All claims and returned goods MUST be accompanied by this bill.**

**RECENTO**  
**BY**

**TAX****TOTAL**

\$1,761 03

McGAIN PRINTING CO., INC.

Up gradient Well #1

F RDM : SEACO

OCT. 7. 1998 3:17PM P 3  
PHONE NO. : 17047540052

PHONE NO. :

Oct. 07 1998 01:56PM P1



Route 1, Box 207  
Mayodan, N.C. 27027  
878-9018 548-2880  
638-2882

**Customer's  
Order No.\_\_\_\_\_**

Date February 17 1989

Name Southeastern Adhesive

Address P. O. Box 327  
Ridgeway, VA. 24148

Ridgeway, VA. 24148		24148		24148		24148		24148		24148	
BOLD BY		CASH		CDD		CHARGE		ON ACCT.		NO. RET.	
PAID OUT											
QUAN.	DESCRIPTION						PRICE	AMOUNT			
	Monitoring Well -- 80' Depth										
	Screen, pipe, casing, lock cap						\$ 989	03			
	Labor						800	00			
							\$1,789	03			
	300 GPM										
	59' Plastic Casing										
	w/										
	a 59' Static Level										
						<div style="border: 1px solid black; padding: 5px; text-align: center;"> <b>RECEIVED</b>  <b>DEPT. 24 1989</b> </div>					
						Card # 70722.001 Rec'd # 1823					
<p>All charges are due the 10th of the month following month of purchase and, if payment is not received by then, a 1 1/4% INTEREST AND SERVICE CHARGE will be added monthly to past due balances. This charge is equivalent to an interest rate of 18% PER ANNUM.</p>											
All claims and returns must be accompanied by this bill.						TAX					
RECEIVED						TOTAL		\$1,789 03			

1. MORGAN PRINTING CO., INC.

Youngs Point Well #A, 2

OCT. 7. 1998 3:17PM P 4  
PHONE NO. : 17047540052

Oct. 07 1998 01:54PM Pz

604-9811

Nov. 22 1989

Don B.

-11-28-89

M. Smith & Wagon Adhesives Co.

St. Rd. 689 - P.O. Box 527

Radway, Va. 24148

1. Monitoring Well  
 2nd Adk. test at 8 FT.  
 20 FT. of 4" outer casing. 10" drill bit. 10" inch test to 30 FT.  
 Big supply of water test at 26 FT.  
 2nd Adk. test at 30 FT. into "Limestone"  
 screen and pipe 50% and  
 grouted in  
 4" x 4" x 6" concrete plug. 10" outer casing grouted to top.  
 Well developed by pumping  
 (Interest of 11% per month will be added to all amounts 30  
 days past due. This is at the annual percentage rate of 18%.)  
 Total Contract - \$2500.00

Wall #3 dominant

FROM : SEACO

OCT. 7. 1998 3:18PM P 5  
PHONE NO. : 17047540052

FROM : SEACO

PHONE NO. :  
STATE WATER CONTROL BOARD  
WEST CENTRAL REGIONAL OFFICE  
GROUND WATER MONITORING WELL SCHEMATIC

#1

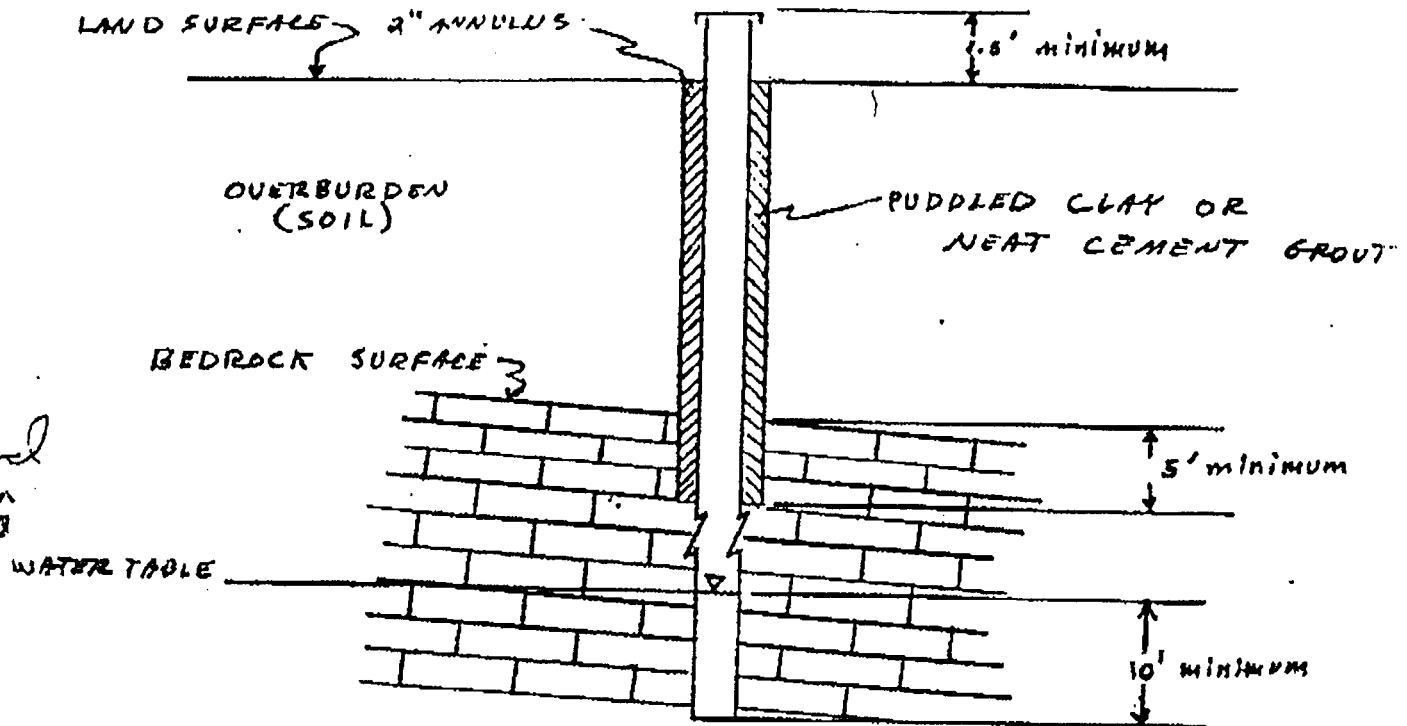


FIGURE 1(a)  
BEDROCK WELL

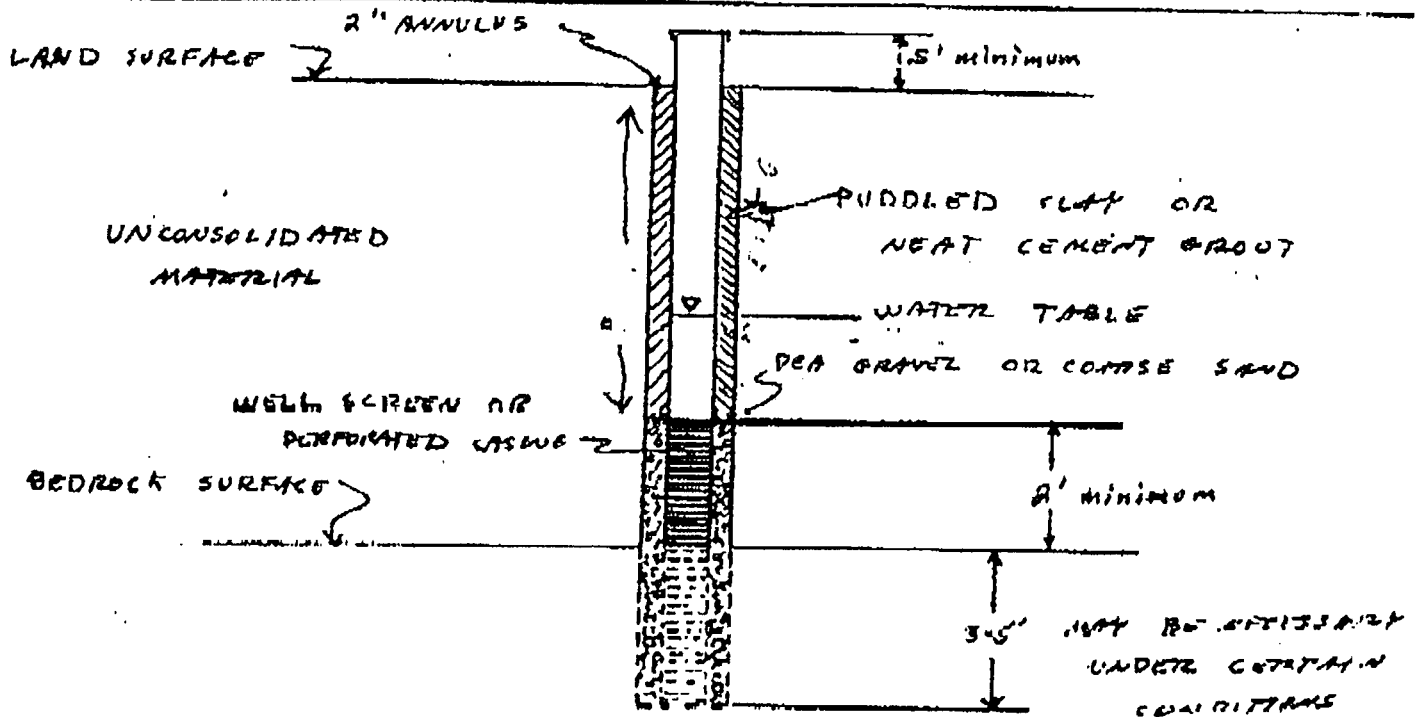


FIGURE 1(b)  
UNCONSOLIDATED MATERIAL



FROM : SEACO

PHONE NO. :

Oct. 07 1998 02:51PM PE

STATE WATER CONTROL BOARD - WEST CENTRAL REGIONAL OFFICE:  
GROUND WATER MONITORING WELL SUBMITTAL  
(FIGURE 2)

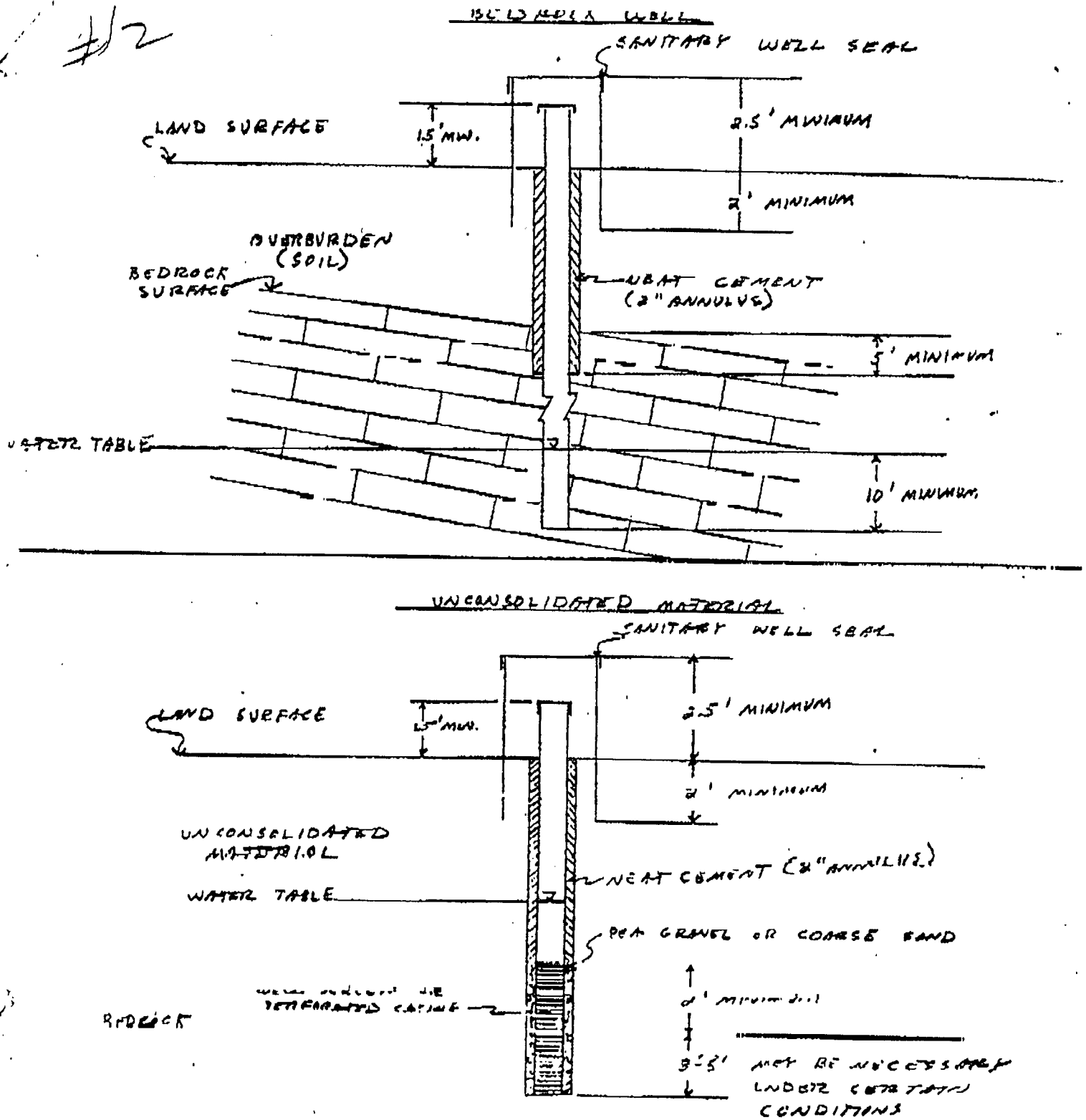
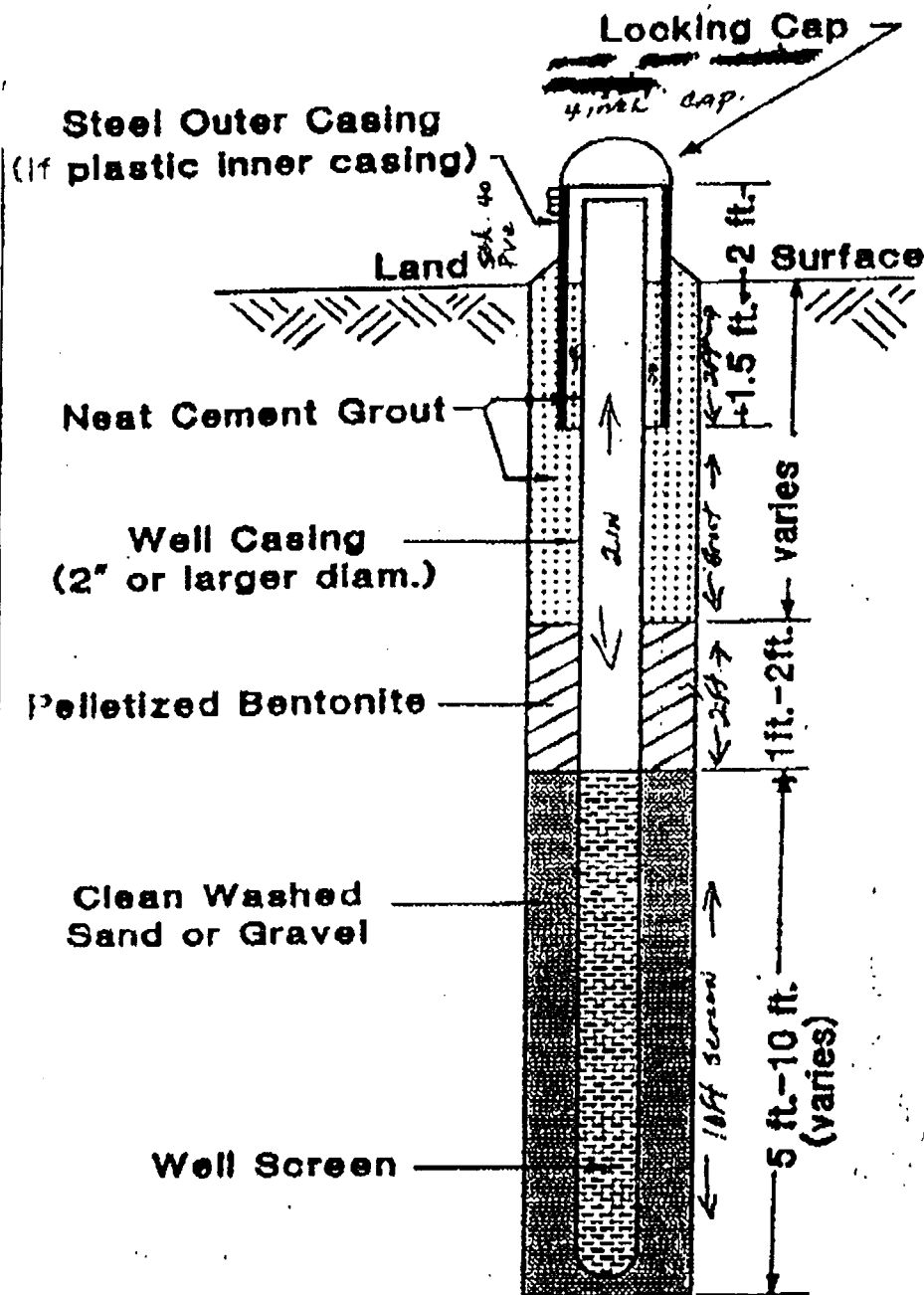


FIGURE 2

**NOTE:**

1. Borehole to be six inches larger than outside diameter of casing.
2. Casing and screen to be centered in borehole.
3. Top of well screen should not be above mean high season water level.
4. Casing and screen material to be compatible with type of contaminant being monitored.
5. Well head to be labeled with highly visible warning saying "Well is for monitoring and not considered safe for drinking."
6. Well to be afforded reasonable protection against damage after construction.

*3rd Well*  
*November 28, 1989*

*Southeastern Adhesives Co. St. Rt 689. Ridgeway Va*

GWS 10/84

**Recommended Construction Details For A Contaminant Monitor Well  
In An Unconfined, Unconsolidated Aquifer.**

Southeastern Adhesives Co.

St. Rd. 689 - P.O. Box 527

Ridgeway Va 24148

Job. Completed Nov. 22, 1989

1. Monitoring Well  
Hard rock hit at 8 ft.

Had to drill, with Hammes & Co. 10" Bit  
20 ft of Sch. 40 outer casing, set.  
Big supply of water hit at 26 ft.  
Est. 20 to 30 GPM.

2 1/2 ft of pea gravel poured in bottom of well

10 ft of 2 inch PVC screen 0.10 slot and  
2 inch Sch. 40 pipe with Cemented joint seal

Screen gravelled packed with 10 ft of  
Washed pea gravel and sealed with  
2 ft of pellet benite

Next Cement pumped all the way to top of well  
around 2" Sch 40 PVC pipe  
outer casing also grouted to top

4x4x6. "Cement platform poured around well

4 inch Sch. 40 galvaneize protective installed  
3 ft down into Cement.

Locking Cap and Lock. installed.

Well developed by pumping approx 10 to 12 GPM

## **Attachment E**

### **Public Notice**

## PUBLIC NOTICE – Environmental Permit

**PURPOSE OF NOTICE:** To seek public comment on a draft permit from the Department of Environmental Quality that will allow the management of stored raw materials, products, and recovery and reuse in Henry County.

**PUBLIC COMMENT PERIOD:** 30 days following the public notice issue date; comment period ends 4:30 pm of last day

**PERMIT NAME:** Virginia Pollutant Abatement Permit – Wastewater issued by DEQ, under the authority of the State Water Control Board

**APPLICANT NAME, ADDRESS, AND PERMIT NUMBER:** Chesapeake Custom Chemical Corporation, PO Box 615, Ridgeway, VA 24148, VPA02001

**FACILITY NAME AND LOCATION** Chesapeake Custom Chemical Corporation, 126 Reservoir Road, Ridgeway, VA 24148

**PROJECT DESCRIPTION:** Chesapeake Custom Chemical Corporation has applied for a reissuance of a permit for the management of chemicals stored at a biodiesel fuel manufacturing facility. This permit will allow the applicant to manage the raw and product storage and spent materials reuse in the industrial process. The permit contains annual ground water monitoring.

**HOW TO COMMENT:** DEQ accepts comments by e-mail, fax, or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for a public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requestor, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. DEQ may hold a public hearing, including another comment period, if a public response is significant and there are substantial, disputed issues relevant to the permit

**CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS, AND ADDITIONAL INFORMATION:**

**NAME:** Becky L. France; **ADDRESS:** Virginia Department of Environmental Quality, West Central Regional Office, 3019 Peters Creek Road, Roanoke, VA 24019-2738; **PHONE:** (540) 562-6700; **E-MAIL ADDRESS:** blfrance@deq.virginia.gov; **FAX:** (540) 562-6725. The public may review the draft permit and application at the DEQ office named above by appointment.